Ministry of
Municipal Affairs
and Housing
Ontario

Research and Special
Projects Branch
for
Community Renewal Branch

Commercial areas in Ontario communities are making a comeback. Over the past fifteen years municipalities have gained valuable knowledge about improving the physical and economic environment of their downtowns and neighbourhood commercial areas.

The process of physical improvement and commercial development are ongoing. There is always room for new ideas and practical advice from those who have been through it earlier or in a different way. This handbook contains a combination of technical information and practical hands-on experience from Ontario municipalities on the most common physical improvements to public areas undertaken by communities in the Province.

The handbook has been designed as a reference work. It is directed at municipalities, BIAs and professionals interested in embarking on or upgrading physical improvements in commercial areas.

There is a detailed index in the back to enable the reader to look up information, such as seating, paving or lighting fixtures. The chapters are organized in the following fashion:

**Chapter 1** describes how a municipality would embark on and carry out commercial area improvements. It focuses on the planning process.

**Chapter 2** examines the urban context of commercial areas, highlighting such factors as land use patterns and traffic circulation, which should be considered before detailed design takes place.

**Chapter 3** is highly technical, and provides information on the practical use and limitations of the most popular commercial area improvements, ranging from landscaping to bollards.

**Chapter 4** provides information from six communities on costs and sources of funding for their commercial area improvements.

**Chapter 5** looks at implementation issues, notably municipal policies and construction and maintenance concerns.

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In planning for a revitalized downtown area, municipalities face a common dilemma - what is involved: urban design, architecture, landscape architecture, engineering, city planning, or public works?

Few municipalities have problems coping with the provision of a new city hall. Once the design and scope of the building has been decided, it is primarily an architectural/engineering task, usually taken care of through the competitive tendering process. But, changing the downtown core is a design and building task of a different magnitude.

At the outset, there are more people involved. In addition to municipal officials, elected and appointed, there is a mixture of independent business and professional people with direct vested interests in every aspect of urban design - from traffic control to street furniture. Revitalizing a commercial area is often a compromise between aesthetics and the reality of the marketplace. Fortunately, Ontario now has a series of successful revitalization projects from which to draw ideas and experience, not only for technical details, but also for planning and implementation expertise.

When communities are about to begin a program of commercial area improvement, the first question often asked is:

**Where do we start?**

The best place to start is with a thorough discussion of the benefits and expectations of the primary groups involved: the downtown business community, the

*Commercial area improvements should begin with discussions with the business community elected and public officials and the general public*

appropriate elected and public municipal officials, and the general public.

Before any concept plan is started, and before anyone begins selecting trees, planter boxes and cobblestones, it is essential to know where they are heading and what they may encounter along the way.

## Who should be involved in planning?

**The municipality must take a leading and positive role in the improvement of commercial areas.** It has, after all, a major stake in its health. Commercial areas represent a major tax base, employment generator, and are an essential community resource for many social and cultural activities. The municipality also has many of the essential technical, financial and legislative tools needed for the job.

The private sector alone cannot be expected to initiate new development. Local government must be involved in the planning, servicing, assemby of land and promotion to secure private interest and investment.

The Business Improvement Area or other local business organizations should be consulted and involved throughout the process, since they will be the group most directly affected by physical changes and will have extensive knowledge about current problems and ideas for the future.

The opinions and knowledge of those using the commercial area every day can make a valuable contribution to planning the type of improvements required. Their views can be obtained by means of shopper surveys, community opinion surveys, public meetings and letters to the editor.

In addition to the views of users, local organizations can be asked to help. An example would be the local horticultural society assisting in the identification of appropriate plants and in the maintenance of strategic garden displays. It is important to stress that commercial revitalization benefits the entire community, not just downtown merchants, and as many people as possible should be involved from the beginning.

Municipalities should also consider the use of professional consultants to assist them with the preparation of a plan and work program, as well as specifications for materials and services.

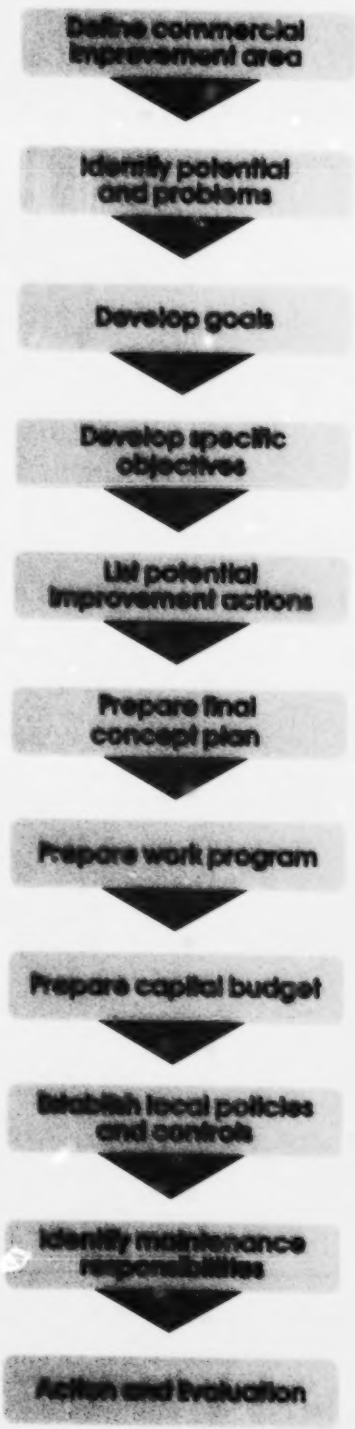
*The opinions and knowledge of people who use the commercial area every day can make a valuable contribution to planning the required improvements.*

## What is the planning process?

Once the major participants have been identified, planning can get underway. There are a number of steps to be followed and out of the process will come a concept plan, a work program, and finally the improvements. Planning, construction and completion may take several years, during which time the results can be assessed and the necessary changes and adjustments made to the plan.

Each municipality has its own unique character and special problems, and it is difficult to generalize on a single planning approach to revitalize commercial areas across Ontario. The process described below will necessarily have some adaptations to the particular circumstances of the community involved.

### The Planning Process




## Define the improvement area

In most communities the study area will correspond to the boundaries of the Business Improvement Area (BIA). If your community does not have a defined BIA, or changes are being considered, the following discussion should prove useful.

A number of issues need to be considered when the commercial area boundaries are drawn. If it is too large an area, improvements may have to be spread too thinly throughout the area to benefit all the owners. The full impact of the improvements may be lost. If it is too small, the improvements may not have the visual effect desired.

The relative success or failure of various improvements will depend on how well business people believe they are benefiting from them. This may affect the long-term willingness of taxpayers to fund improvements. It is essential that the area include those properties which truly form a part of the commercial district and will benefit from the changes.

To assist with improvement area definition, a base map should be prepared. Base mapping usually includes information on property boundaries, building locations, parking areas, roads and sidewalks. Such mapping material is often available from the municipal clerk or the public works department.

In addition to identifying the properties which will be contained within the commercial area, the physical form and function of the commercial area should be considered. A good example of how to go about defining the commercial area follows.

In most small urban areas, municipal buildings form the heart and focus of the core. Surrounding these buildings is the traditional central shopping district: main street. This traditional core can be identified by an examination of the buildings contained in it. The common building features to look for are: age, character, architectural style, scale and materials. Once this traditional core is determined, an extension might be considered to include a building or group of buildings important to the functioning of the commercial area, such as newer stores, a library, office block or warehouse area whose use has changed over the years.

The activities of people using the downtown area are a vital factor in defining the core. A block of newer shops may form an intrinsic part of the shopping district, and should be included if normal shopping or business trips to the core include the area. Vacant lots (with potential for parking or new construction) or a unique feature (a heritage building, riverfront or tourist attraction) may also form a logical part of the core or commercial area.

Buildings are one of the key features of a commercial area, and changes in their character and use can mark the edge of downtown. Other factors in defining the edge of a downtown area might be a major roadway separating the core from a residential neighbourhood, vacant or underdeveloped land, a railway line or a river. These often form useful, readily identifiable boundaries for the area.

Different municipalities will naturally have different commercial area configurations. One may stretch the length of the main street (linear); another may have two major intersecting streets (crossstreet); yet another may have two streets running parallel to each other (double linear). Downtowns may differ from secondary commercial areas, and the improvement area boundaries should reflect these individual differences.

*Many commercial areas, like Arnprior, have an attractive heritage building to provide a focal point.*

## Identify Potential and Problems

This is the most important step in getting to know and understand the commercial area as it is today and what its potential is for the future. Every area is unique in some way, and this uniqueness forms a large part of its potential.

The commercial area may be physically unique with:

- historical or architecturally unusual buildings
- special features, such as a civic square or port facility
- tourist attractions, such as an old mill or craft studios
- environmental features, such as a waterfront, trees or a river.

The commercial area may also have an individuality which is derived from its closeness to regional or provincial attractions, such as beaches or provincial parks.

Some towns have special events which help to give the community its particular character, including activities such as an ethnic festival (Fergus Highland Games), a fall fair (New Liskeard), or summer theatre (Lindsay).

*Other communities are well known as host municipalities for special events, such as Fergus and their annual Highland Games.*

Ontario Ministry of Tourism and Recreation

The unique or special features of every community will not necessarily have been identified or exploited yet. In those cases, the preparation of a plan for downtown may provide the occasion for a community to assess its untapped potential, as well as improving its existing resources.

*The Tay River Basin in Perth, Ontario provides the opportunity to attract tourists to the downtown.*

Not every community can be a tourist attraction, and the potential for improvement or revitalization may lie in the enhancement of the existing services the commercial area already provides to local and regional residents. It is important that the principal functions of the downtown or neighbourhood shopping district should be understood at the outset, so that improvements can be selected which are both practical and economically viable, as well as visually pleasing.

If there are no major tourist attractions or facilities, the community should not expect to draw on that market, and should determine what its specific commercial functions may be:

- a shopping district for residents
- an agricultural supply centre
- a regional shopping and business centre

An assessment of the commercial area's health is a vital aspect of understanding how the downtown area functions and where some of its major problems might lie. An economic assessment will provide a cornerstone for planning, and using the results the community can direct its efforts towards specific sectors which may be in decline, enhance stable areas, or objectively examine any problems arising

*An assessment of the commercial area's health is a vital aspect of understanding how it functions.*

from an economic assessment. An economic assessment is also vital if proper evaluation is to be carried out after the improvements have been implemented.

**What to include in an economic assessment?**

**1. Amount of floor space by type of use.** (e.g., retail/convenience or department store, personal service, institutional office, residential, vacant, etc.) This basic data will provide an understanding of what activities are carried on in the downtown area, whether there is a majority of certain types of stores or uses, and where unused potential may exist. An example might be the lack of furniture stores or substantial vacant space above ground level.

**2. Annual retail sales per square metre.** This should provide evidence of the relative health of businesses, as well as indicating geographic areas or sectors where businesses are not doing well.

**3. Vacancy rates and turnover.** A vacancy rate is the percentage of all stores and businesses which are vacant over the period of a year. A factor above three per cent may indicate an area is not economically healthy.

**4. Employment.** A community should determine how many jobs are provided downtown. This is often an insight into the economic importance of the commercial area to a community, and the information will provide a basis on which to estimate how many new jobs may be created if new development occurs and businesses expand.

**5. Taxable assessment.** Commercial areas are a major source of tax revenue in a municipality. New development or expansion of existing businesses should provide additional revenue.

The identification of both economic potential and problems would not be complete without an inventory of the physical characteristics of the commercial area. These include:

- land use mix
- unique features
- municipal buildings
- roadways
- sidewalks
- pedestrian walkways
- vacant under-utilized spaces
- shelters
- parking
- lighting
- signage
- green spaces
- utilities
- street furniture

An inventory of physical characteristics should consider problems with existing physical features (including whether they are in a poor state of repair) and potential (how they can be improved). In general, the use of the space, building or feature, its condition, its location and design qualities should be considered here. In addition, input from shoppers and other people who use the downtown area every day would be useful at this point.

*In some areas, economic planning and revitalization must go hand in hand with intended physical improvements.*

## Develop Goals

Once the potential for the commercial area and its current problems have been identified, long term goals can be established. These goals should express the ultimate ambitions a community has for its downtown area. Such a goal might be expressed as providing a distinctive, attractive shopping district which provides a full range of services to local residents.

Goals provide the direction for improving the area. They are usually expressed broadly enough for them to remain in effect for some time without becoming obsolete.

Goals should always reflect the particular needs of the individual community. For example, many communities may have one goal in common: "to strengthen the role and function of the downtown area". Another town may have as its goal: "to develop the commercial area as a major tourist centre".

Goals should encompass all the actions a community would like to undertake downtown, and should not be directed only to government programs. Goals should also incorporate promotional and organizational activities of the BIA, and or a coordinated facelift of storefronts along the main street.

Finally, the goals should flow from the problems and opportunities identified earlier. Some examples:

**Problem**
New shopping centre on outskirts of town

▼

**Goal**
Improve core area for shoppers

**Opportunity**
Attractive transient marina close to downtown

▼

**Goal**
Develop tourist attraction and amenities

*A distinctive architectural style, like the stone buildings in Perth's downtown provides an opportunity upon which to build an image for the commercial area.*

## Develop Specific Objectives

Once the general goals are established for the commercial area, specific objectives can be identified. Specific objectives are the interim targets to be achieved on the way to accomplishing the overall goals, such as improving pedestrian circulation and comfort on the main street by widening sidewalks, providing benches and more suitable lighting.

Objectives may include the development of a pedestrian walkway system, the creation of a farmer's market, the use of decorative fountains and garden displays, or the creation of a theme for the downtown area.

## Prepare List of Possible Actions

The number and variety of improvements which can be made in commercial areas is almost endless. Imagination and creativity have a major part to play in developing both interesting and practical ideas. In order to identify those works which are feasible, the community should examine as many potential improvements as possible.

One way to achieve this is to set out a list of all possible improvements under each of the objectives the community has developed. Some improvements will be mentioned under more than one objective. Community input would be valuable during this phase to suggest improvements and methods of implementing various proposed works.

Using one of the examples above, the following objective and possible actions could be developed to improve the core area for downtown shoppers:

**Problem**

New shopping centre on outskirts of town

**Goal**

Improve core area for shoppers

**Objective**

Improve pedestrian amenities and circulation on sidewalks

**Possible actions**

Widen sidewalks to provide space for street furniture and unobstructed pathway. Repave sidewalk with decorative bricks. Remove parking meters.

To ensure that this phase is not prolonged, some type of timeframe should be detailed. With an open-ended commitment to change, this stage could drag on indefinitely, with both the objectives and the specific actions delayed beyond general interest. As with the construction phase, the planning stage must be realistically limited in order to move the overall project along to completion.

## Prepare Concept Plan

Any program for improvement to commercial areas will involve a number of individual works requiring a plan which illustrates what specific changes are proposed, where they will be located, how they will relate to each other, and the time-frame needed for their implementation (phasing).

Once the full range of possible commercial area improvements has been developed, alternative concept plans should be prepared that incorporate the proposed work items. The plans should reveal how the various improvements would fit together and should visually provide a way of testing their feasibility. Detail is not important at this stage and effort should be concentrated on preparing several overall schemes for the commercial area, rather than working out the details of a particular street corner parkette.

In keeping with the attempt to limit the planning stages, the number of alternative concept plans should be kept to a minimum. Three non-detailed alternatives should give the community sufficient information to consider.

## Prepare The Final Concept Plan

The alternative plans should be evaluated and the most suitable plan, or composite plan made up from elements of all three, should be selected.

The following criteria should be considered an important part of plan selection:

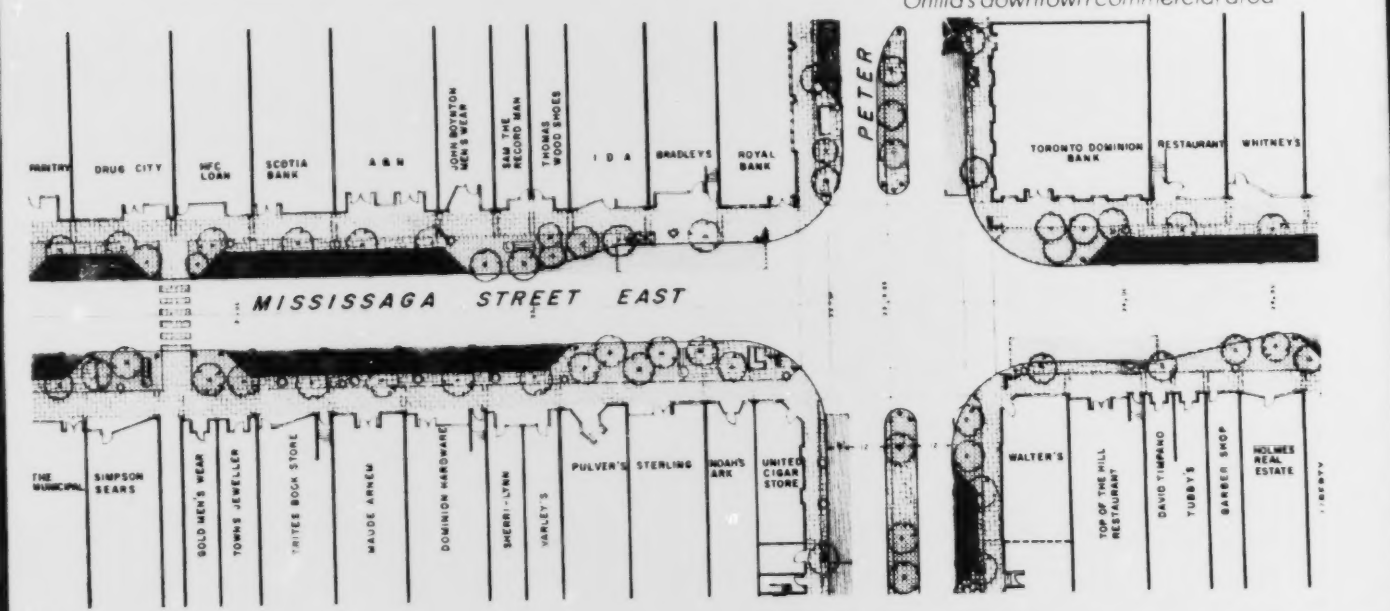
**Suitability:** How well does the plan fit the objectives and goals established at the outset of the process; will it solve some of the community's problems and will it utilize available potential?

**Cost:** How much will the improvements cost; how will they be funded and will sufficient monies be available when required?

**Feasibility:** Can the improvements all be carried out within the stipulated time-frame, and are there any major impediments to the undertaking (e.g., property ownership)? A short time-frame for this first plan should be seriously considered. The results will be visible sooner and the financial commitment less burdensome. As an alternative, phasing might be indicated.

Once the most appropriate plan has been selected, a final concept plan can be prepared. The final plan would include detailed working drawings for actual improvements; that is, the layout, materials and services required for specific items such as a street corner parkette or a pedestrian walkway.

*The final concept plan prepared for Orillia's downtown commercial area*



## Prepare Work Program and Identify Funding Sources

Once the commercial area improvements have been decided upon and a final plan drawn, the work program should be developed. A work program is made up of three elements: timing or phasing of the works, itemized costs, personnel, municipal departments or other bodies, such as the BIA, undertaking the work. If the improvements are to be phased in over a number of years, the work program is essential in coordinating various tasks, budgets and personnel allocations.

Phasing of improvements should take into account:

- other planned municipal work or budgetary priorities
- functional relationship of improvements to each other

If the community is planning to dig up the main roadway during the implementation period, any related improvements, such as sidewalk widening, repaving or burying utility wires, should be coordinated with this municipal project. Similarly, if a street corner parkette is planned, the entire parkette should be constructed at one time, not in bits and pieces.

Some projects should probably be initiated before others to achieve the most beneficial results. If this revitalization project is the first major community venture into commercial area improvements, the results of the first project will likely set the tone for the way future works and expenditures will be viewed by the community. This will be a very important consideration.

A number of different strategies are possible:

- undertake a pilot project on the main street, one that will immediately engage the interest of the community at large and will make a significant and readily visible improvement to the downtown area;

- undertake a number of small projects throughout the downtown area, in order to widely distribute the benefits;

- work on a block by block basis, as Orillia has done, and use extensive publicity to keep everyone informed.

*Work underway on Orillia's commercial area improvements*

Funding will determine the amount of work to be carried out in the first years. Most communities have limited funds for improvements in the initial years. Once the beneficial effects are felt (e.g., increased retail sales), financial resources may become more readily available, and more ambitious and costly projects can be started, such as sidewalk widening and repaving.

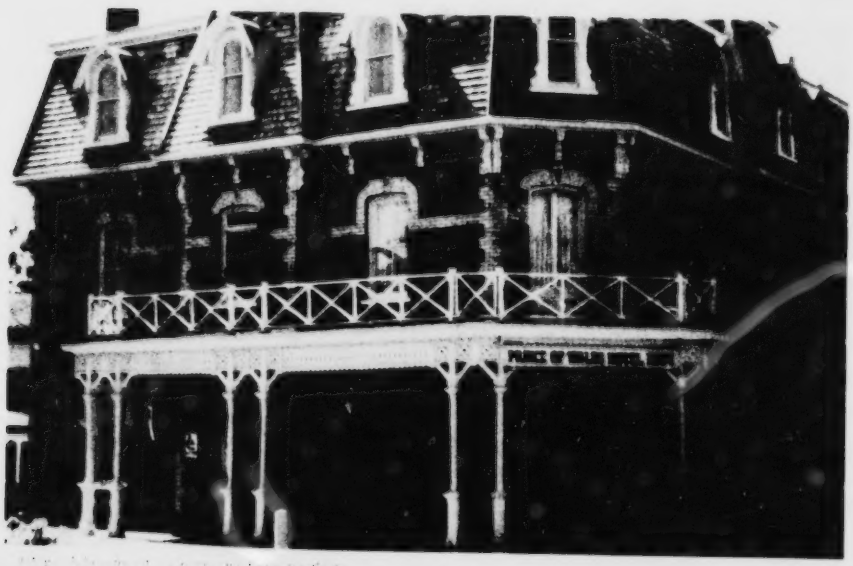
The identification of all sources of funding is also an essential early step in the planning process. This will help define the nature and scope of the work that can be undertaken. Many government programs can be effectively used to carry out improvements in commercial areas. These cover a wide range of possibilities:

- Comprehensive commercial area improvements
- Heritage buildings and districts
- Neighbourhood improvements
- Water and sewage works
- Roads, bridges and culverts
- Connecting road links
- Community planning studies
- Homes for the aged
- Non-profit housing

Implementation of the proposed improvements is a very important aspect of the work program. Two principal considerations are municipal priorities and project coordination.

In most cases the municipality will be responsible for carrying out the improvements, and current budgetary and staffing priorities. In addition, constraints will have to be evaluated to determine when the relevant departments will be able to begin work on the commercial area.

A coordinator for the improvement program will have to be found. Experience in Ontario communities has shown that results are best when one person is delegated the responsibility for coordinating the improvements. In the majority of cases the coordinator is selected from the municipal staff, but a BIA staff person may also be involved.



*Prince of Wales Hotel in Niagara-on-the-Lake, a heritage building*

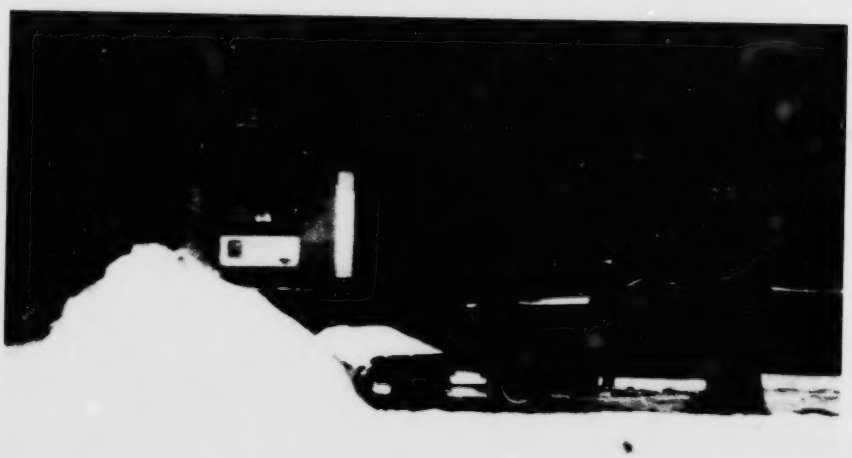
## Capital Budget and Local Policy

Once the work program has been prepared and funding sources identified, the capital budget has to be prepared. This would most likely be undertaken by the municipality's financial officers. In addition to the budget, the municipality will want to initiate and adopt the necessary by-laws to support the proposed improvements, including a sign control by-law or a property maintenance and occupancy standards by-law. Necessary revisions should also be made to the official plan, indicating the commercial improvement area, and setting out community improvement policies, as required under the Planning Act, 1983. Any needed changes to the zoning bylaw should be carried out at this time. These are discussed in more detail in the last chapter.

## Maintenance Responsibilities

Maintenance of the improvements could include watering plants and trees, leaf and snow removal, repairs to street furniture, painting and other tasks. It is important that the responsibility for such maintenance be determined before the improvements are implemented, whether that responsibility rests with the local municipality (and which departments), the members of the BIA, or with any other affected agencies or groups.

The costs of maintenance should also be a consideration. If the costs are too high and beyond the limits of a particular department, the proposed improvements may have to be reconsidered.



*Snow removal is an important aspect of maintenance and room for snow storage should be considered when preparing the concept plan*

## Action and Evaluation

Evaluation of downtown improvements is as important as the original research, planning and implementation. Once initial improvement projects have been completed and in use for a year, the community should evaluate their impact on the commercial area. An evaluation is basically a review of the project's performance to determine if it lived up to everyone's expectations.

An evaluation should cover the following areas:

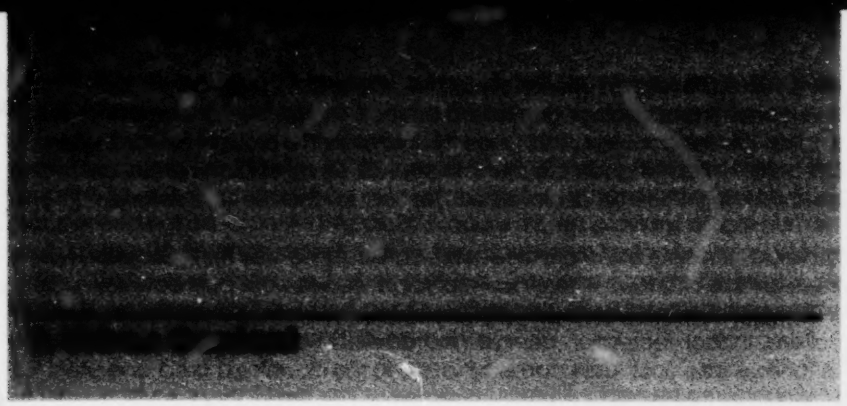
- use by the target groups: who, when, frequency
- abuse or unforeseen impact: by whom, when, frequency
- visual appearance: wear and tear, use and abuse
- durability of materials
- maintenance problems
- costs of construction and maintenance

The information obtained from such an assessment can be used in many ways:

- changes can be made to make the project more successful
- unforeseen problems can be corrected
- public input can be encouraged again
- the experience can help make future improvements better meet the community's needs.

*Construction underway in North Bay*

Planning for commercial area improvement should involve the whole community, even those who have no direct stake in a revitalized downtown. Downtown is the heart of most communities in Ontario, and without a sound heart, the community may never reach its potential.



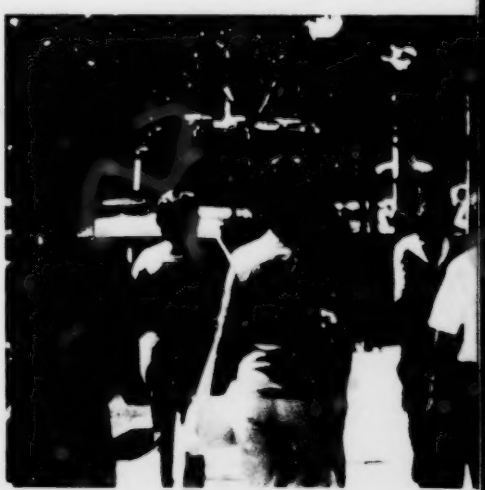
Trees, benches, lighting and paving materials are only a few of the elements that combine to enhance the physical and social image of a revitalized commercial area. The integration of these various improvements into an overall plan suitable to the unique historic, architectural and economic characteristics of each individual community should be the overriding objective of the planning process.

The major influences on the final concept plan for any commercial area will be existing and planned land uses, along with parking, and vehicular and pedestrian circulation systems. The individual components such as pedestrian areas, lighting, signage, street furniture and landscaping, should enhance the surrounding buildings and respect the planned circulation systems.

This chapter discusses the urban context. An understanding of land-use activities and circulation systems are the basic knowledge required when planning for commercial area improvements, and when preparing a concept plan.

Once the urban context is understood, then the specific design elements can be considered.

*Downtown is the traditional cultural and social heart of the community.*

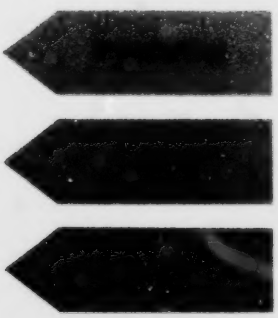


## Land Use Activities

Downtown is more than a business venture, it is the traditional cultural and social heart of the community. This diversity of functions is its real strength. Every effort should be made to develop this multi-purpose character by encouraging compatible uses to locate downtown: offices, entertainment and appropriate housing. While shopping will be the single dominant use downtown, all of the other components that make downtown should not be overlooked.

The location and mixture of existing uses will have to be identified, along with their physical condition, scale and relationship to circulation patterns. Any periodic

*The mix of land uses is an important asset of commercial areas. (Toronto).*



event, such as a farmers' market should be noted, along with the location. Finally, development proposals or committed projects should be considered for incorporation into the concept plan. Once this information is brought forward, attention can be given to the goals the municipality has set for its commercial area, and how these might best be achieved with respect to land use and activities.

Municipalities, not just the private sector, can lead the way here. Sturgeon Falls is one example of a town where new municipal offices were built downtown. Core development opportunities can be lost when new municipal offices, community facilities, indoor recreation centres and assisted housing projects are built on peripheral sites. Such uses can add vitality to the downtown area and users will benefit from the central location, available public transit, and ready access to other facilities in the core.

*Municipal offices, like those in Sturgeon Falls, can add vitality to the downtown area.*

*Some uses, because of their need for automobile and truck access, are inappropriate businesses for a commercial area.*

It is equally important to recognize that some businesses are not well suited to downtown, with its pedestrian-oriented main streets. They often disrupt the pedestrian walkways by their need for automobile and truck access, and their large site needs upset the basic compact nature of downtown. Car dealers, drive-in food outlets, and service stations are examples of inappropriate businesses for downtown.

One development strategy to consider might be to focus all new development on an appropriate "anchor" project, such as a department store or supermarket, complemented by other facilities which might include parking, housing and public outdoor space. In many communities, vacant sites and under-utilized buildings, often in key locations, offer considerable scope for this type of development. Such projects require considerable planning work, municipal and private investment,

*Cornwall Square is an example of new commercial development changing the face of downtown.*

as well as popular support, but they can uplift and regenerate an entire commercial area.

There are many opportunities for the creative use of public spaces carved from vacant lots, wide setbacks in front of buildings, or the realignment of streets. Such places need not be large. As little as 250 square meters provides ample human-scale space. When landscaped, such public places can be the focus for outdoor cafes, sitting areas, kiosks and other activities. They also provide an invaluable facility for major promotions and public gatherings. All of these will have wider spin-offs in bringing more people downtown.

Some opportunities continually arise in connection with planning for commercial areas, and should be given special attention if they occur:

*Widened sidewalks can be effectively used for outdoor cafes.*

**Waterfronts and riverfronts** are often very close to commercial areas, and offer excellent opportunities for enhancing commercial area attractiveness. Such areas provide space for incorporating landscaping and parkland in the overall concept plan, and can sometimes accommodate major recreational facilities that complement other downtown uses. An excellent example is the Kingston waterfront area with its hotel, park, marina and residential development.

*This cafe in Perth has capitalized on its river front setting adjacent to the main street.*

**Historic** or architecturally attractive buildings are also a major asset, adding character to an area and providing visual focal points. Many of these are large structures such as hotels, railway stations, churches and courthouses. They may also offer potential for renovation and conversion to offices, apartments or museums.

*Architecturally attractive buildings add character and interest to a commercial area. (Midland).*

**Farmers' markets** are another integral part of many of Ontario's cities and towns, attracting many people and adding economic vitality to commercial areas. They may be located in a vacant lot or parking area, with few amenities for either customers or retailers. With better and more prominent locations, the farmers' market concept can be upgraded to attract more traders, more customers, and have a positive effect on the retail activity in the centre. The Byward Market in Ottawa is an excellent example of this kind of upgrading.

*Farmers' markets are an integral part of many of Ontario's communities, attracting people and adding vitality to commercial areas. (Byward Market, Ottawa).*

**Clocktowers, fountains and sculptures** are just part of a long list of local features which can be highlighted and exploited. A clocktower whose chime can be restored will have a profound effect on the downtown community, bringing a sense of space and time to their daily activities, and the sound of running water brings cool relief to hot summer streets. Such features are symbols that bring focus and renewed interest to the downtown area.

*Fountains, like this one in Guelph, can create a welcome respite in a bustling commercial setting*

## Vehicular Circulation

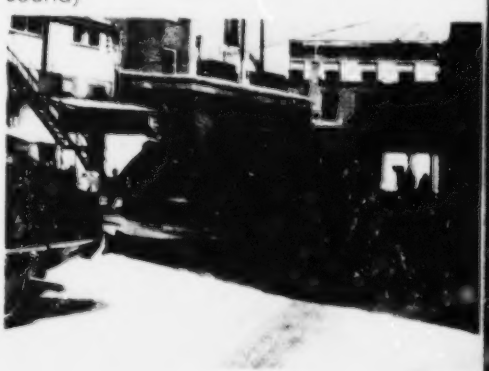
Vehicular circulation should be designed to provide convenient access to the commercial area and the activities within it. There should be a directness to the pattern that avoids roundabout travel.

The local road system should be able to accommodate the diverse traffic movements that are typical downtown. For example, drivers will often drop off passengers on the main street, check the location of a shop, or seek on-street parking space before proceeding to an off-street parking lot. Left-turn restrictions regularly frustrate these common driving patterns, causing considerable inconvenience to drivers. One of the solutions to this problem is to provide more than one way to reach any given destination.

*The local road system should be able to accommodate the diverse traffic movements that are typical downtown (Collingwood)*

Service access to businesses and other developments in the commercial area should be from back or side streets wherever possible. Vehicles crossing sidewalks, or parked along the main street for unloading purposes, are a hazard to pedestrians and add to unnecessary visual and environmental pollution. This additional traffic also restricts the design options for improving the street. Whenever possible pedestrians and commercial traffic should be kept apart.

*Service access should be from back or side streets wherever possible (Owen Sound)*



*Improvements to traffic circulation were made when the physical improvements to the rest of Princess Street were undertaken. (Kingston)*

In many communities the major transportation issue they face is how to handle through-traffic and at the same time make the desired changes to improve downtown. Some communities, such as Kitchener, have been able to divert through-traffic from their main shopping streets onto arterial roads which by-pass the downtown.

*The Pitt Street Mall in Cornwall is another example where through-traffic has been re-routed onto arterial roads which by-pass downtown*

In other situations, combination pedestrian and traffic lighting has been used. Along with overhead lights mounted on buildings or new attractively designed lamp standards, these modifications to converted vehicular lighting help reduce the impact of throughtraffic on pedestrians. Where through-traffic is occurring, careful attention must be paid to pedestrian crossings, curb parking and signage.

Emergency vehicles must be able to reach any portion of downtown in a reasonably direct manner. Bus services could be brought right into the downtown core, but this will depend on the degree of traffic congestion. Ideally, bus service drop-off points should be on adjacent streets very close to the main facilities.

The downtown can be made the central interchange point for various local and regional bus services, but the bus station and main transfer locations should be off the main street. The size, noise and fumes of a typical transit bus can be an intolerable intrusion in a pedestrian-oriented downtown area, and when large numbers of buses are gathered in one place, with their engines running, the effect is most unpleasant for local businesses and their customers.

*A serpentine road pattern was built on Dundas Street East in London, creating the impression of a special area, but allowing traffic to pass through*

[1] The most up-to-date planning and design standards for municipal roadways may be obtained from: Manager, Municipal Roads Office, Ministry of Transportation and Communications, 1201 Wilson Avenue, Downsview, Ontario M3M 1J8 (416) 248-3621

## Parking

Car parking is an essential service and major land-use downtown. While curb-side parking can accommodate much of the demand in smaller centres, this will need to be supplemented in larger communities by additional off-street parking.

Municipalities should take responsibility for providing and operating parking areas in their downtown core.

Municipal parking policies can be established to make best use of this limited resource. In most cases this will mean giving priority to high-turnover, short-term users. The short-term parking user who stays for an hour or two is vital to the economic well-being of the central core and should be accommodated if possible.

Allowing long-term parkers, such as downtown employees, to park all day in prime parking spaces is a luxury that most downtown areas cannot afford. Long-term parkers invariably arrive earlier than customers and tend to select the closest parking spot to their place of employment. Every effort should be made to persuade long-term parkers to use the peripheral parking spots and leave the prime locations for paying customers.

One municipal option is shared public parking facilities. The overall number of spaces can be reduced because they can be used by a variety of users during the day and night. For example, the same spaces can be used by shoppers during the weekday, moviegoers in the evening, and church-goers on Sunday. Different land uses generate different peak parking characteristics, and with shared parking the total number of spaces required can be reduced.

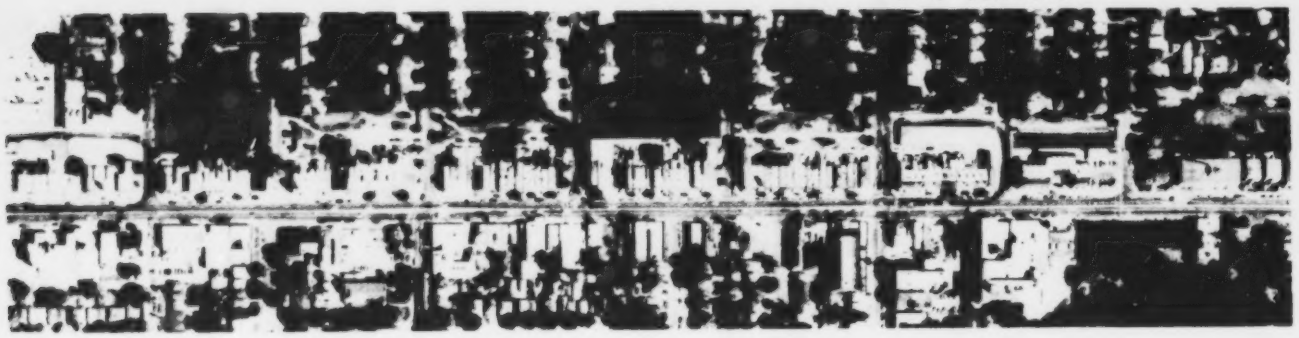
Another alternative may be the consolidation of the total number of spaces into fewer properly planned lots. They can be located where they can be served by access points from the side or back streets without disrupting the sidewalks along the main street. At the same time, good pedestrian links can be provided to the shopping area, with landscaping to make them attractive and to help overcome the natural resistance to the possible loss of on-street parking.

When siting parking lots, the capacity of access streets and the character of adjoining uses should be considered. Off-street parking areas should be limited in size in order to reduce their visual and traffic impact on the neighbouring areas, especially if residential. An average lot size of fifty cars is a good standard, and the provision of a number of parking areas of about this size, rather than one large one will give better service by spreading the facilities throughout the core area.

Ideally, shoppers should be able to leave their cars in one spot, or arrive by bus or walking, then conveniently visit a number of shops and businesses. Regional shopping centres are designed so that the longest walking distance between the main stores and the parking area is 300 m, and while this rule can be affected by local conditions, it is a useful guideline when planning comparable shopping areas.

*Special efforts can be made to accommodate the needs of shoppers (Kingston).*

*In Bloor West Village, Toronto, a number of smaller parking lots have been provided to enable shoppers to get closer to their destination.*



Gosling, D. and Maitland, B. Design and Planning of Retail Systems. The Architectural Press Ltd. 1980

## Pedestrian Circulation

One of the pleasures of a revitalized commercial area is to allow shoppers to walk from store to store, to linger in outdoor cafes and restaurants, to rest beside trees, shrubs, flowers and fountains. The efficient movement of vehicular traffic is vital to any downtown, but equally vital is the pedestrian.

A pedestrian network should tie together the main commercial establishments and car parking areas, as well as the major community and recreational facilities. It should also extend into the neighbourhood residential areas.

*A pedestrian network should tie together the main commercial establishments and car parking. (Cornwall)*

Pedestrians need safe, pleasant and convenient routes. While a number of improvements can be made at the detailed design stage, when considering the overall urban context in preparing the concept plan, the emphasis should be on reducing walking distances and increasing pedestrian safety, comfort and interest. To reduce walking distances, the plan should work towards creating a compact business area and a continuous shopping street.

Long blocks add significantly to walking distances in the centre core. A series of connections may be created throughout the commercial area using arcades. Both Cobourg and Midland have done this. Upgraded alleyways and rear entrances into shops can also be used.

*This arcade in Coburg provides access to the parking lot in the rear of a long block of stores.*

Traffic lanes should be limited to four, to allow pedestrians to cross the street with reasonable ease and safety. Reducing traffic speed and volume in the commercial area, and in some cases eliminating through-traffic, will also increase pedestrian safety.

For most smaller and medium-sized downtown areas, turning the main street into a closed traffic-free mall is not an economically viable or necessary solution. Shops in these centres depend on convenient car access and good car exposure during shopping and off-peak hours. Traffic also adds a sense of activity and liveliness on otherwise quiet streets, especially at night, and may add to the feeling of security that comes from constant use of the downtown core. Closed pedestrian street malls can be a limiting factor if pedestrians are reluctant to use them in off-peak periods.

In conclusion, the land uses and activities, the pedestrian and vehicular circulation systems, and the arrangement of parking space, all form the basis for a concept plan. Overlaid on this framework will be the specific changes to the layout and organization of particular spaces: sidewalks, parking lots, roadways, building facades and other factors. The following chapter looks at the design and technical features of many of the most common improvements made to the commercial streetscape in Ontario communities.

# 3. Improvements

The design of improvements to be made in commercial areas is equally important to the durability and practicality of the final result. Commercial areas are the heart of the community and the improvements can create and add to the image the community wishes to convey. Poorly conceived improvements can also detract from that desired image.

At the same time, commercial areas are heavily used. If the improvements are not well thought out, materials carefully selected and guidelines on appropriate use and placement carefully observed, they will quickly break down.

The concept plan will, of course, coordinate the improvements in terms of location and phasing, as well as give guidance on choice of colours, materials and design theme.

This chapter provides general design advice on commercial area improvements. Both aesthetic and technical aspects are covered, and, as far as possible, it incorporates suggestions on standards, guidelines for design and materials, as well as installation and maintenance. The range of improvements that a community can select for its commercial area is almost endless. Those most commonly carried out in Ontario have been selected for reporting here, and should provide a good foundation on which to build. The guidelines are suggestions only and are intended to be indicative of appropriate standards, rather than hard-and-fast rules. The improvements cover the following:

**Pedestrian areas**
- re-paving
- sidewalk widening
- pedestrian nodes
- curbs
- crosswalks
- steps and ramps

**Landscaping**
- design and micro-climate
- planters
- tree selection

**Lighting**
- design for vehicles
- design for pedestrians
- special effects
- fixtures and types of lamps

**Street furniture**
- benches
- planters
- litter containers
- flags and banners
- newspaper stands
- bicycle racks
- bollards
- telephone booths
- fire hydrants
- pedestrian shelters
- decorative fountains

**Parking lots**
- provision
- types of parking
- location
- materials
- lighting
- landscaping
- graphics

**Signage**
- guidelines
- controls

**Awnings**

## Pedestrian Areas

The improvements to sidewalks and other pedestrian areas should be aimed at increasing the safety, convenience and pleasure of the pedestrian. These features encourage more walking in the downtown area and serve to enhance it as a shopping centre and gathering place.

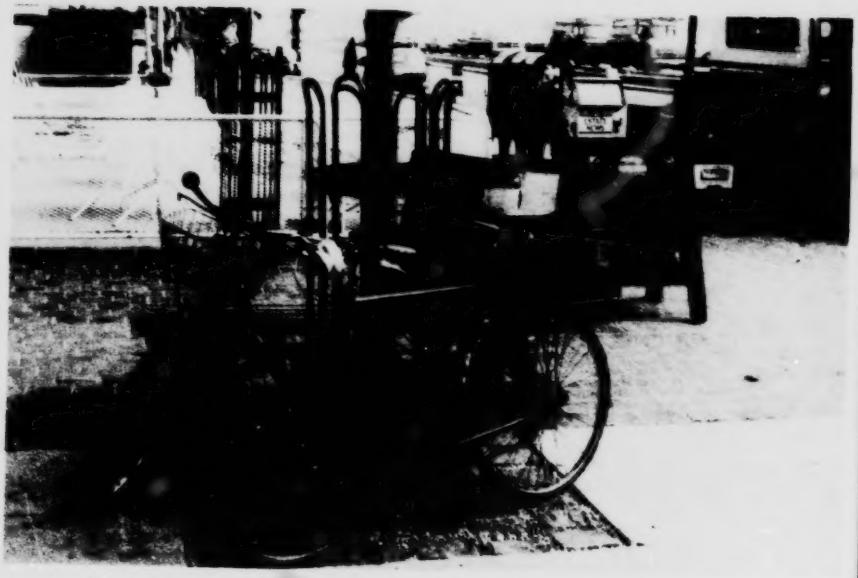
Improvements to sidewalks can be made in a variety of ways:

- repaving the surface
- widening the sidewalk
- creating pedestrian nodes
- providing curb cuts
- adding crosswalks

*Midland displays a variety of improvements to pedestrian areas.*

Whatever sidewalk improvement is undertaken, an attempt should be made to remove or consolidate the increasing number of objects that clutter pedestrian areas: traffic and direction signs, lamp standards, hydro poles, fire hydrants, parking meters, mail boxes and newspaper vending machines. Not only is this disorganized clutter unsightly, it is also a hazard to many pedestrians, especially the handicapped.

*Sidewalk clutter is a common problem in many communities.*

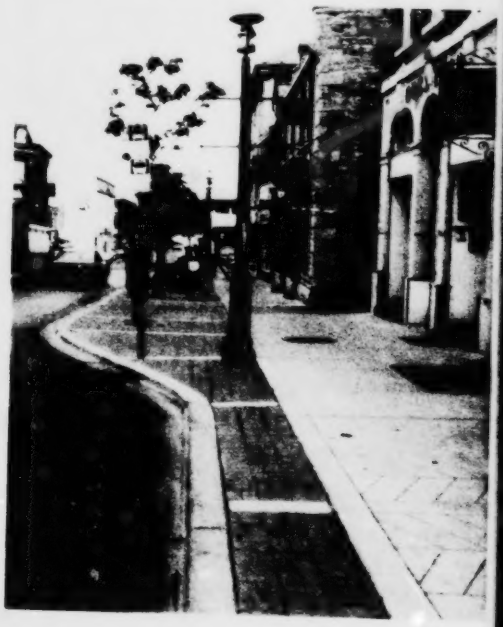


## Repaving

The different colours, textures and patterns of the surface materials can be used to visually organize the pedestrian areas. For example, a change of paving can be used to separate public areas from private areas, or to distinguish the walking areas from the more passive areas for seating and street furniture. It can also be used to signal potentially hazardous areas such as ramps, stairs and curbs, or to discourage pedestrians crossing certain areas.

Instead of replacing the entire existing surface, special paving can be used in selected areas. For example, brick strips can be cut into the concrete along the curb to mark the edge of the pavement, or across the pavement at regular intervals to break the monotony of a broad expanse of sidewalk. These alternatives can be attractive while costing less than normal replacement. This will provide uniform treatment and a single identity for the commercial area.

*Changes in paving can be used to distinguish the walking areas from the more passive areas for seating and street furniture. Examples in Ottawa St. Windsor (l) and in Kingston (r).*



Paving materials should be limited to two or three types, and used consistently in the same way throughout the downtown area. A mixture of too many colours, textures and styles may look "busy" and detract from the effects desired. In Orillia two colours of paving have been used with excellent results.

New pavement can be expected to last at least fifty years, so to prevent disturbance, planning consideration should be given to the need for upgrading the underground services before the new pavement is laid.

*Brick strips can be cut into the concrete to delineate the curb and break the monotony of a broad expanse of sidewalk (Belleville).*

## Materials

The texture and colour of the ground surface is a significant visual element in the downtown streetscape. The "floor" of downtown should not only be functional, but interesting and pleasing to the eye. The surface materials should be integrated into the overall design for the area and coordinated with the lighting equipment, street furniture, and the surrounding buildings.

The paving must fulfill necessary functional requirements as well as look pleasing to the eye. It must provide a hard, durable and non-slip surface capable of withstanding heavy pedestrian and limited vehicular traffic. It must also withstand the results of Ontario's climate, including damage from salt deposits, repeated freezing and thawing, and snow removal equipment.

*Bricks are regaining their former popularity because of their richer, darker colour and traditional look. (Ottawa St., Windsor).*

*Concrete has many advantages: durable, non-slippery, and adaptable to almost any shape. (Hensall).*

The choice of sidewalk paving materials, when cost and all the above factors are considered, is probably limited to poured concrete, concrete pavers and brick pavers. Many other paving materials can also be used, but for reasons noted later, only in selected and specialized areas.

Concrete, the most common paving material for sidewalks, has many advantages. It is very durable, not-slippery when appropriately textured, and adaptable to almost any shape.

The major drawback of concrete is its limited and drab colour. Colour can be introduced by mixing in oxide pigments, and both colour and texture can also be added by using stone aggregates exposed to the surface of the concrete at the troweling stage. Concrete surfaces can also be textured with decorative patterns and various fine or coarse finishes. Use of coloured concrete pavers in Orillia has been quite successful.

Bricks are regaining their former popularity as a paving material. Their richer and darker colours make them more attractive than their alternatives. The material is also more consistent with the traditional or heritage theme sought in many downtowns.

Another factor not to be overlooked is that brick and concrete pavers can be reused if they are ever disturbed by underground repair work, if they have been set in a sand and gravel (not concrete) base. Although all municipalities should review the services before upgrading their sidewalks, this will not prevent the need to occasionally break the surface for repairs or hook-ups.

Brick pavers, unlike normal building bricks, are a non-absorptive and dense material manufactured specifically for outdoor use to resist abrasive wear, as well as freezing and thawing actions. The pavers can be installed in a wide variety of patterns, either on a sand and gravel base, or set in mortar on a concrete slab.

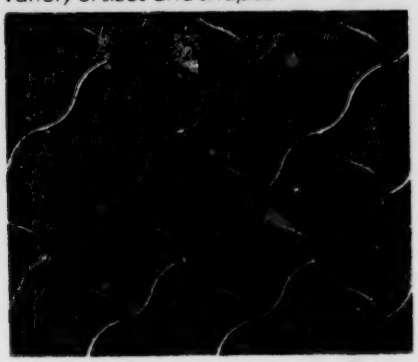
Bricks and concrete can be used effectively together. As an alternative to the replacement of an entire existing concrete sidewalk, bricks can be used in selected areas. For example, they can be placed in pedestrian nodes to define the more passive areas. Brick strips can also be cut into the concrete to mark the curb edge and/or emphasize the pavement at regular intervals.

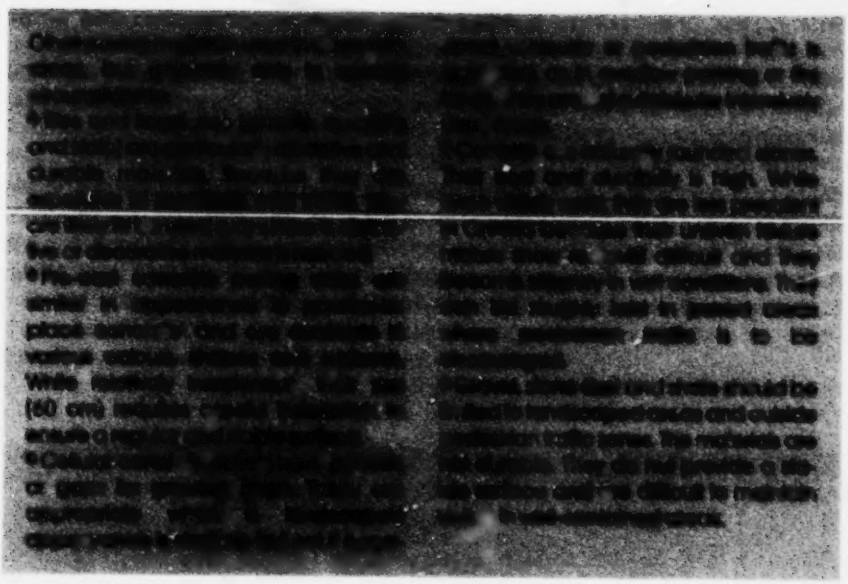
*Interlocking concrete pavers are comparable in durability and competitive in terms of cost to poured-in-place concrete. They have been used extensively in North Bay.*

Interlocking concrete pavers come in a variety of shapes and sizes. The material is comparable in durability to poured-in-place concrete, and competitive in terms of cost. It is available in a wide range of warm colours, which can be supplemented by made-to-order shades.

The need for proper installation of brick and concrete pavers must be stressed. When set on a sand and gravel base, they must be correctly installed to retain their vertical and lateral stability. Of particular importance are compacting the base properly, providing strong edging, and fitting the pavers together tightly. The correct installation procedures should be specified and monitored by a qualified engineer. When properly installed, current indications are that these materials provide a stable, hard-wearing and easily maintained surface for pedestrian and vehicular areas.

*Interlocking pavers come in a great variety of sizes and shapes.*





*Widened sidewalks provide ample room for pedestrians (Belleville).*

*With widenings, sidewalks can also accommodate merchandise during sidewalk sales. (London)*

## Widening of Sidewalks

Widening a sidewalk can relieve crowding. It also makes the pedestrian area more pleasant by providing space for landscaping, street furniture, and displays of merchandise. On busy streets, particularly streets without parked cars, it can add an extra measure of protection from moving traffic. Such widening can often be done in conjunction with repaving. One metre is the mimimum width for a landscaped buffer zone.

Widening sidewalks may be costly, since drains, lights, hydrants, meters and other features may need relocation. Drainage may be the biggest problem. Sidewalks and roads usually slope to the gutter at the curb, where the run-off is collected. In many cases extending the sidewalk, even with the 1 percent minimum slopes needed for proper drainage,[1] will place the new curb below the street grade.

Where the vertical drop across the extended sidewalk is insufficient for drainage, it can be accommodated in two different ways.

If the roadway is being re-graded and resurfaced at the same time, new catch basins can be installed at the curb. If the roadway is not being changed, the drainage must be handled by a reverse slope, draining the water back towards

[1]Time-Saver Standards, 4th Edition. **A Handbook of Architectural Design.** (p. 1248)

the old curb line, where it can then be removed through a trench drain or swale, towards the catch basin.

Both these solutions are effective, but have their potential problems. The surface swale can cause ponding and ice on the sidewalks, if the drain is blocked. The grate for the trench basin must have sufficiently small holes to avoid being a pedestrian hazard.

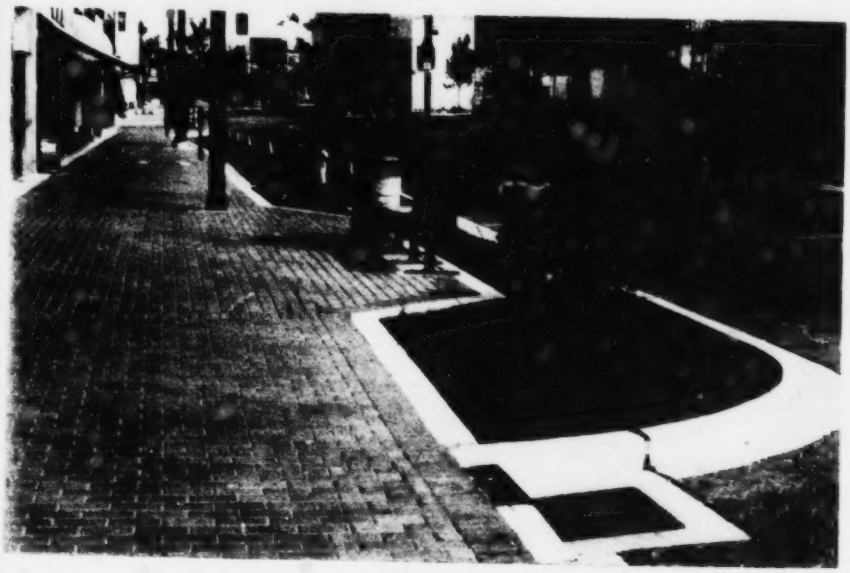
## Pedestrian Nodes

An effective way of adding more pedestrian space is expanding the sidewalk in selected areas. These extensions are called pedestrian "nodes", "islands" or "bulbs".

Nodes are typically found at corners and mid-block locations. They are particularly appropriate at corners, where most crossings are made and crowding occurs. Because parking is not permitted near corners, they can usually be provided with no loss of on-street parking or traffic lanes.

*Pedestrian nodes, like this one in Belleville, can provide room for street furniture, especially seating.*

Mid-block nodes are also helpful. They serve to focus pedestrian street crossings and are especially useful along long blocks. Because drivers may not expect street crossings at these points, the nodes should be clearly marked. Nodes of this kind have been built in many Ontario communities, such as Midland, Orillia, Belleville, Windsor (Ottawa Street).



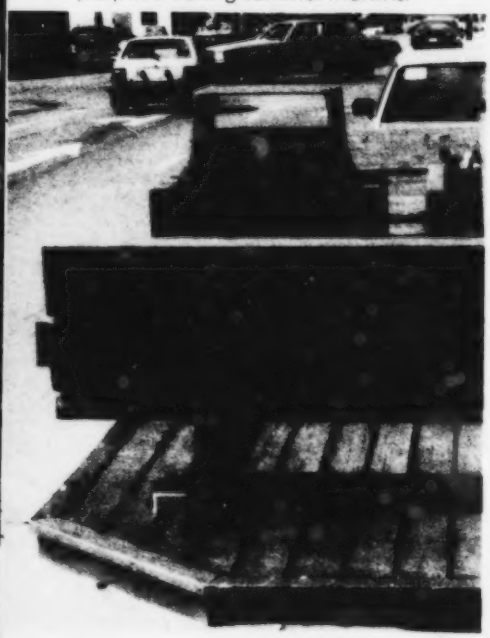
*In North Bay, the node has been combined with a pedestrian crossing.*

A node provides safer conditions for the pedestrians crossing the street. It reduces the walking distance across the roadway, and allows the pedestrian to have a better view of traffic beyond the line of parked cars before crossing the street. A clearly marked crosswalk sign and the extension of the sidewalk into the street, warns the driver to slow down. If there is curb-side parking, mid-block nodes will eliminate one or more spaces.

Pedestrian nodes are also suitable locations for landscaping and street furniture because they are outside the movement corridor for pedestrians. They can be used for benches, bicycle racks, shelters and many other utilitarian objects that normally take sidewalk space.

The exact dimensions of a node can vary according to the room available. As a general guideline, they should be at least 6 m long and slightly narrower than the abutting parking bays.[1] The configuration should also allow for street cleaning and snow removal by machine. The return angle is variable but 45 degrees is common.

*Corner nodes are most suitable for landscaping and benches (Petrolia), right, and in Dryden, where snow removal is important, movable nodes for the same purpose during summer months.*



As in the case of widened sidewalks, adding a node may create drainage problems. The possible solutions to this have already been covered in the discussions of sidewalk widenings.

Where winter conditions normally would preclude the installation of pedestrian nodes removable or temporary structures can be built. In Dryden, temporary wooden platforms with a bench, garbage container and planter have been developed for this purpose. They are stored off-site during winter months.

[1]Untermann, P.K. Accommodating the Pedestrian: Adapting Towns and Neighbourhoods for Walking and Bicycling. Van Nostrand Reinhold Co. N.Y. 1984.

## Curb Cuts

Curb cut ramps for wheelchairs and bicycles are necessary at all corners and other crossing points. The ramps should be at least 90 cm wide, excluding side slopes, with a gradient of less than 8 per cent and flush with the street and the sidewalk at top and bottom.[1] The ramp should have a non-slip surface and flare to reach grade.

Ramps can be most readily provided if the corner has been extended into a pedestrian node. Then, the normal sidewalk can be kept level, and the ramp constructed in the extension. Mid-block ramps can be similarly provided where the sidewalks are flanked by a planting strip. The use of roughened pavement on the ramp will warn blind users. This roughened pavement could be exposed aggregate concrete, concrete cast with ribs, cast terra-cotta, or brick.

*Wherever possible ramps should be provided at corners for wheelchairs, strollers and buggies (Kingston).*

*This photo shows a ramp properly constructed for a pedestrian crossing (Carleton Place).*

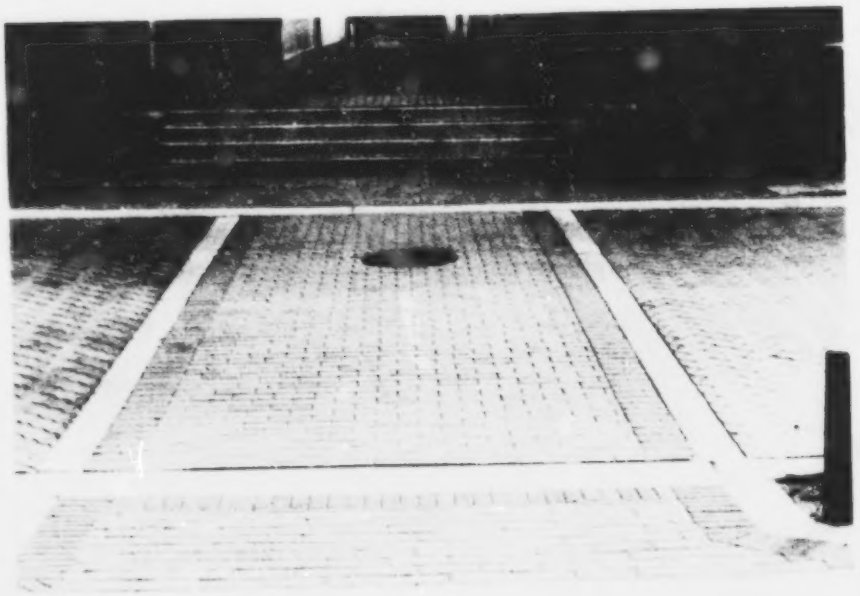
[1] Untermann, P.K. op. cit.

## Crosswalks

Crosswalks should be provided to assist pedestrians in crossing busy or hazardous streets. The type of crossing to be used depends on the density of pedestrian and vehicular traffic, and the risk of accident.

The main alternatives are:

- signalized crosswalks with automatically timed phases;
- signalized crosswalks with lights manually activated by the pedestrian;
- uncontrolled crosswalks, clearly marked, but giving no formal priority to the pedestrian.



*Uncontrolled crosswalks should be clearly marked with contrasting material such as bricks or paint. (North Bay)*

Signalized crossings for pedestrians are generally installed only when frequent pedestrian crossings excessively delay automobiles, or when crossing the street is difficult because of high auto speed or volumes.

At crossings with less vehicular and pedestrian conflict, designated crosswalks can be used. These street crossings assign to pedestrians the right to cross after signalling the traffic. The incidence of accidents is higher than at a signalized crosswalk.

Designated crosswalks in Ontario are governed by regulations which limit their use in many circumstances. They must be marked by the prescribed overhead lighting, signage and painted markings. These formal requirements may be intrusive in a well-designed and co-ordinated streetscape. Designated crosswalks cannot be located within 300 metres of a signaled intersection because they are considered disruptive to traffic flows.[1] This spacing is often too long for convenient pedestrian crossings along a commercial street.

As an alternative, many communities have successfully used uncontrolled crosswalks in their downtown areas (e.g. Midland and Collingwood). These crosswalks are typically provided between two pedestrian nodes and clearly marked by using brick or paint on the road surface. Their location can be further reinforced by special lighting, banners and signs. While there appears to be some potential for accidents because the car legally has priority, they have been widely and safely operated where the traffic is relatively light and mainly local in origin.

Crosswalks, in many cases, should be boldly marked with wide white stripes or contrasting material such as brick, concrete or stone, set in the road surface. The

[1] Municipal Roads Office, Ministry of Transportation and Communications, op. cit.

crosswalk should be at least 3.6 m wide, but can extend to 12 m at particularly busy places.[1] Ramps at the curb should ideally extend across the entire width of the crosswalk.

Wide streets can have boulevards to provide further protection (e.g. The Kingsway, City of Etobicoke.) The boulevard allows slow walkers to concentrate on traffic from one direction at a time, and rest before crossing the other traffic lanes. Waiting time is reduced since pedestrians need not wait for simultaneous gaps in the traffic from both directions. The wider and busier the street, the more advantageous a boulevard becomes.

*This boulevard in Toronto demonstrates how it can be used to assist pedestrians crossing a wide street, as well as to create attractive space for lighting and trees.*

Boulevards should be a minimum of 1.2 m wide, curbed to protect the pedestrian, with ramps for wheelchairs and bicycles.[2] A special type of crosswalk can be used where laneways cross the sidewalk. In these cases, priority can be given to the pedestrian by extending the sidewalk across the lane, and installing ramps for automobiles. The ramps serve to warn the driver and enforce slower speeds. If the crosswalk is paved with a different material, such as brick or concrete, this will further emphasize the pedestrian's priority.

**The sidewalk width needed in commercial areas will depend on local circumstances, but the following guidelines will be useful:**

- **Two metres is the minimum width, free of all obstructions (i.e. signs, hydrants, etc.) to allow two people to pass comfortably, or walk side by side carrying parcels.**
- **Three metres is a desirable minimum width along most main streets, again free from all obstructions, to allow reasonable flexibility for pedestrian movement, as well as window shopping and wheeled vehicles (strollers and wheelchairs).**
- **Four metres is a reasonable maximum width for most main streets, except in busy areas. Any space beyond this should probably be considered for landscaping or street furniture.[3]**

[1] Untermann, op. cit., p. 168.

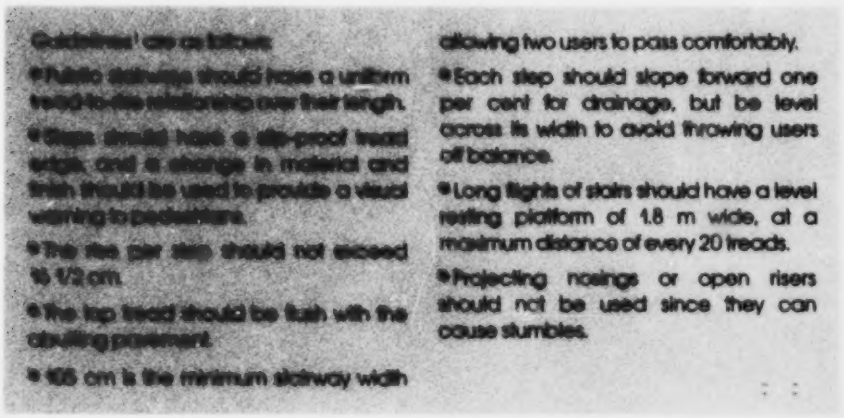
[2] Untermann, op. cit., p. 36.

[3] City of North York, Planning and Development Department. **City of North York Streetscape Guidelines.**

Grates and utility covers should not be located in the main pedestrian areas. If this is unavoidable, they should match the surrounding grade. All grills and grates should have openings no larger than 10 mm in diameter. Any larger opening may catch the tip of a cane or crutch, the heel of a shoe, or the wheels of wheelchair.

**Steps**

Steps are the most efficient way to move people from one level to another. They require less space than ramps, and are adjustable to site conditions. The chief disadvantage is they cannot be used by the handicapped in wheelchairs, they often pose a problem for the elderly, and can be hazardous in crowded situations. All public stairs should have a parallel ramped access route.


Guidelines[1] are as follows:
• Public stairways should have a uniform tread-to-rise relationship over their length.
• Steps should have a slip-proof tread surface, and a change in material and finish should be used to provide a visual warning to pedestrians.
• The rise per step should not exceed 16 1/2 cm.
• The top tread should be flush with the abutting pavement.
• 105 cm is the minimum stairway width allowing two users to pass comfortably.
• Each step should slope forward one per cent for drainage, but be level across its width to avoid throwing users off balance.
• Long flights of stairs should have a level resting platform of 1.8 m wide, at a maximum distance of every 20 treads.
• Projecting nosings or open risers should not be used since they can cause stumbles.

A stairway with regular use should have lighting indicating its top and bottom, and the edge of each tread. The lighting should be one footcandle at the ground.

**Ramps**

A walkway system can incorporate various features for the non-ambulatory. Walkways should be 120 cm wide to allow a person in a wheelchair to pass another person, while gates and doors should have a minimum clear opening of 80 cm. Depending on local circumstances, occasional turning points 1.8 m wide should be provided along narrow walks.[2]

When ramps are provided as alternative means of access to all stairs, they should be at least 90 cm wide, including side slopes. The ideal maximum ramp slope should be 5 percent, and 8 percent the minimum. Cross slopes more than two per cent should be avoided because they adversely affect wheel traction.[3]

Handrails are necessary along retaining walls and any slope over five per cent, to serve those with an ambulatory problem. Handrails should be constructed 80-90 cm above the ramped or sloped walkway, and extend 30 cm beyond the end of the ramp.[4]

While handrails are essential in certain places, they are expensive and often visually disruptive. To design without them, keep slopes below five per cent, or use a planting edge 75 cm (30 in) wide as a buffer along retaining walls.

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[1] Central Mortgage and Housing Corporation. **Landscape Architectural Design and Maintenance. Ottawa, 1982. p. 44.**

[2] Untermann, op. cit. p. 44-45

[3] Ibid. p. 42

[4] Ibid. p. 42

## Landscaping

Landscaping is one of the most effective ways to improve the appearance of downtown streets. In particular, trees are often the single most attractive and memorable part of the streetscape. Their ever-changing light, sound, movement and patterns are welcome attractions to pedestrians. Greenery also softens the local environment, bringing a welcome touch of nature to a busy commercial area by giving it a human scale, and helping tie together the different building styles.

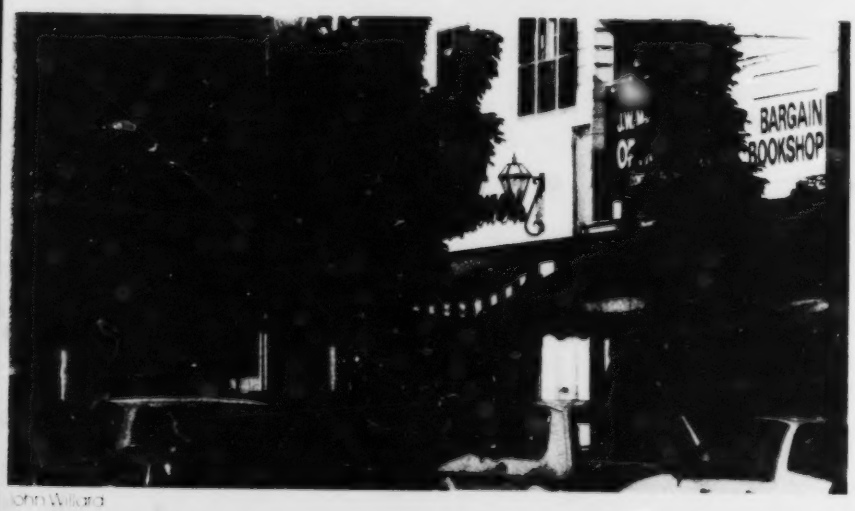
At a practical level, landscaping has many benefits. Trees can improve the local micro-climate by buffering the wind, shading the sun, cooling the air, reducing glare and collecting airborne dust.

*Landscaping softens a busy commercial street (St. Thomas)*

## Design with Trees

Trees can be imaginatively used in a variety of ways and selectively placed to complement, extend or modify the buildings around them. A canopy of trees can create a sense of enclosure overhead. A single dominant tree can focus attention to a desired key point, or a pair of trees can be used to frame an important view, building or gateway. A row of trees can also define one side of a space, while a colonnade of trees can unify an entire street.

In many downtowns, one species has been planted at regular intervals down both sides of the street. This has the merit of giving a strong unifying image to an otherwise diverse streetscape.




*Trees, in particular, can give a strong unifying image to downtown. (Oakville)*

John Willard

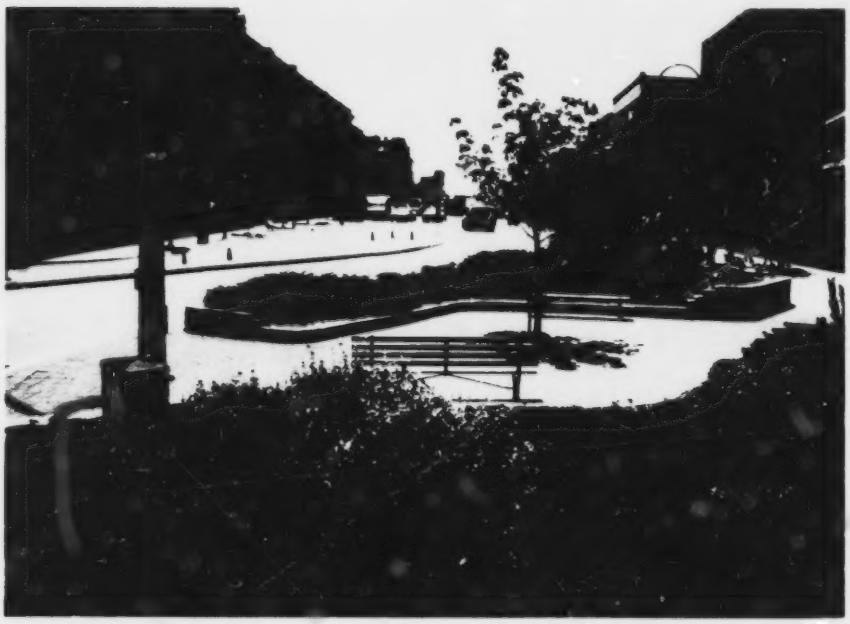
An alternative and more flexible approach is to use different species grouped or spaced more freely. This adds variety and richness to the street and allows particular trees to be used for accents. Such planting also provides ecological diversity to ensure survival of some species in case of an epidemic. If the trees are removed for any reason, their absence is less noticeable.

In their placement, deciduous trees should be governed by these factors:

- The distance from the curb should be at least 1 m to reduce the potential of being hit by cars and opening doors, and to provide sufficient space for the root ball.[1]
- The spacing between the trees will depend on the mature size. In general, 12-18 m should be provided for large canopy trees, 9-12 m for narrow or medium-sized trees, and 6-9 m for small trees.[2]
- The distance from the building facade will also depend on the mature size. It should be at least one half the figures above.[3]
- The distance from a building projection should be a minimum of 2 m.[4]
- The distance from an intersection will depend on the road category. Distances of 10 m or less from the curb have been used.

## Design with shrubs

Shrubs are also a valuable design resource. They may be used to define space, and to screen, soften and create human scale. Planted in conjunction with small trees, they may be used where space or services (overhead and underground) rule out larger trees. If planned for screening, they should be used in mass with coniferous and deciduous trees. Because small trees are vulnerable to damage when planted near heavily used areas, they should be planted in protected areas, in raised containers, or enclosed in special tree protectors whose design complements the surroundings. There are a wide variety of shrubs and small trees from which to choose. For the best results, a local nursery should be consulted early in the process.



*In Guelph, shrubs and small trees have been effectively used to define a corner parkette without cutting-off views of the shopping street.*

[1] City of North York Planning and Development Dept. **City of North York Streetscape Guidelines**, p. 29-41.
[2] Ibid.
[3] Ibid.
[4] City of Toronto. **Details for Downtown Streetscapes**. n.d.

## Impact on Microclimate

Trees and other planting can have a beneficial effect on the local microclimate and the energy requirements of buildings in the area.

**Summer:** Deciduous trees are particularly good because of their ability to shade the summer sun, while allowing the winter sun to penetrate once the leaves have fallen. The best location for these trees is to the south and west of buildings and spaces to be shaded; the heat from the midday sun is prevented and the late afternoon heat build up is lessened. Conifers are usually ineffective as shade trees because they cannot block the high summer sun.

Other landscaping techniques can help in the summer, in a variety of ways. Vines on an arbour, trellis or pergola can be used to provide shade. Fences, shrubs and other material can reduce glare and heat reflected from surfaces such as concrete. Shrubs, grass and small plants also absorb solar radiation in the summer. Most plant material causes further cooling by transpiration and evaporation.

**Winter:** In seeking winter access to the sun it should be recognized that some deciduous trees block more light than others. The branch structure of some species is so dense that half the solar radiation may be lost. Some species lose their leaves late in the fall and bud early in the spring, and the oak, for example, retains some of its leaves during winter.

If maximum access to the winter sun is important, deciduous trees must be planted at a sufficient distance away from the space or wall needing solar access. In Canadian latitudes this distance should be three times the mature tree height away from the southern exposure.

In winter, planting can be used to buffer the wind by reducing its velocity or deflecting its direction. Evergreens provide the best protection here because of their winter foliage. A dense screen of fir can reduce wind velocity up to 20 per cent.

Deciduous trees, while less effective, can also be used to buffer winter winds. Their branches can reduce wind velocities, especially if planted with a combination of different deciduous trees and shrubs and/or in a wide band.

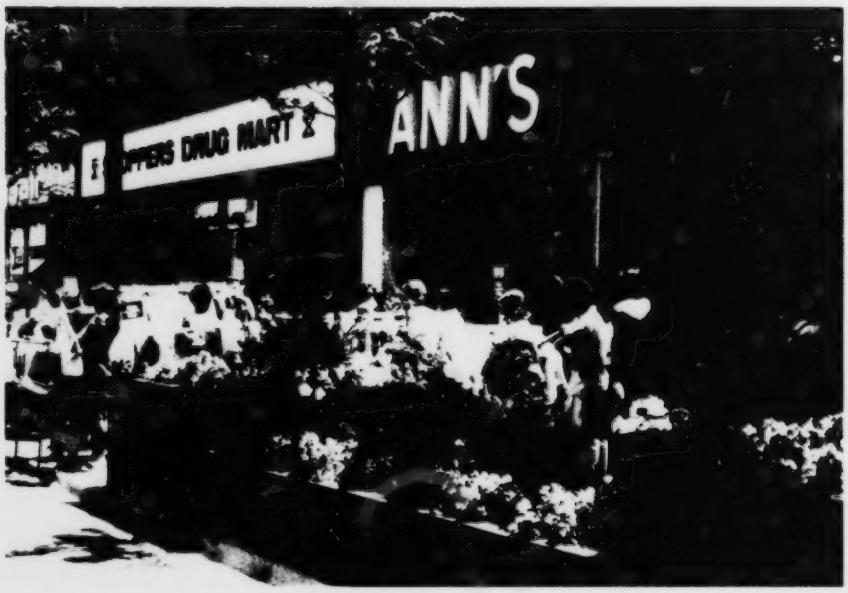
Local experience and weather data should be used in selecting planting for the most effective buffering. The prevailing winter winds in Ontario are from the northwest, and areas requiring shelter should have trees planted to the north and east of the site.

Plants differ markedly in their sensitivity to sun, shade, and wind. Even plants that are normally resistant to winds will grow better if sheltered. All species, especially conifers, suffer from scorching due to excessive transpiration in windy areas. Younger trees usually adapt more easily to new conditions and produce a greater effect sooner than transplanted mature trees. The advice of a landscape architect should be sought when planting in exposed areas.

## Planters

Planters are an acceptable and attractive method of landscaping the downtown area when large areas of paving make in-ground planting impractical.

Raised containers and planters in downtown areas, however, should be used with care. They can take up valuable sidewalk space, clutter the streetscape, interfere with snow removal, pedestrian movement and the opening of car doors. Maintenance is an important consideration.




*Care should be taken in the placement of planters to ensure they do not obstruct pedestrian flow or obstruct the opening of car doors.*

Full-sized trees are not suited to planters. The confined and exposed conditions inhibit root growth and undermine the health of the tree. Full-sized trees in planters require more maintenance than trees in the ground, and their life-span would be shorter.

On the other hand, planters are excellent for small trees and low-lying planting areas in well-used pedestrian areas. Here, the planters serve to prevent vandalism and encroachment by elevating the planting and defining the non-pedestrian areas. Regular maintenance is essential, however, since raised planters are often used as litter containers.

*Planters in Essex show how low-lying plants can be satisfactorily combined with small trees.*

Planters may be used to define spaces, help in creating changes of level, and provide a barrier between incompatible activities. They can also be usefully placed along curbs to reinforce parking restrictions. However, when near on-street parking, such planters should be set back one metre from the curb to provide clearance for opening doors and protruding bumpers.

They can be made from many materials, but care is needed in some cases. Concrete planters can be unattractive unless faced with brick veneer, or treated

*Hanging planters are a good way to add colour and greenery to a commercial area*

to create a surface texture. If brick planters are built too high they will be unable to withstand the internal pressure from the soil and freezing water. Rough-sawn timber or railroad ties are durable and easy to use, but any creosote wood preservative or splinters can damage clothing.

Planters and low retaining walls may also be planned as supplementary places for casual seating, but if seating is to be discouraged, the lip of the planter should be kept narrow.

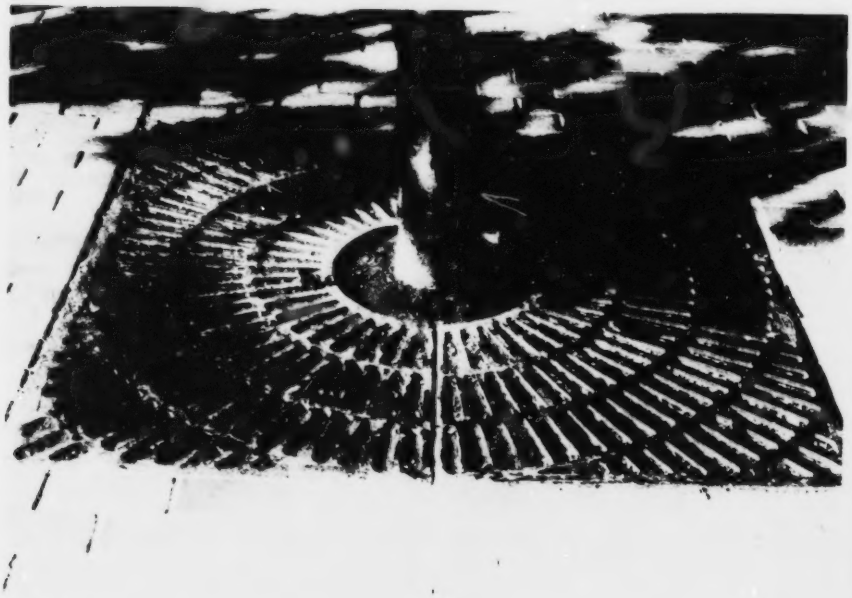
Hanging baskets are another option for planting annual flowers and vines. Care should be taken with placement to ensure they do not obscure signs and/or shop windows. These will have to be newly planted every year.

[1]Central Mortgage and Housing Corporation. **Roof Decks Design Guidelines**. n.d. p. 45
[2]Ibid. p. 41

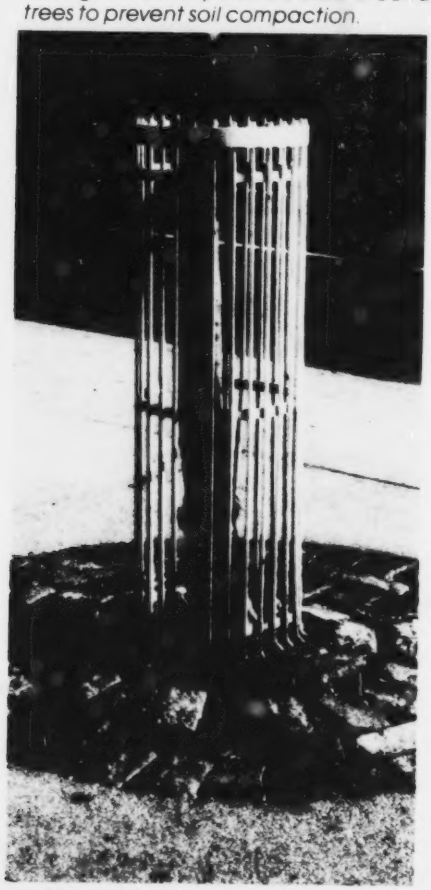
## Installation and Maintenance

When planting trees and other landscaping materials, expert knowledge is needed about soil, fertilizer, water, anchoring and other factors. This brief summary can only highlight a few key points.

*The use of tree grates around the base of trees prevents soil compaction and provides a safe walking surface.*



*Paving stones may also be used around trees to prevent soil compaction.*



Trees planted in or near pedestrian areas need protection from soil compaction, which reduces the the spaces between the soil particles necessary for roots to breathe and absorb water and nutrients. Tree grates or paving stones set in sand around the base of the tree are two ways to prevent compaction while providing a safe walking surface. Metal grates are better than paving stones, but grates are more expensive and need regular cleaning to remove refuse.

The first growing season, and particularly the first few weeks, are the most crucial to the survival of plants, as new roots are being established and the shock of transplanting is being overcome. Watering, mulching and pruning will be necessary.

The maintenance will change over the life of the plant. In the first few years, watering and fertilizing will be a major concern, followed by more emphasis on pruning and counteracting various stresses.

## Tree selection

Selection of the most appropriate trees should take account of many factors:

- functional and visual effects desired
- local soil and climate conditions
- maintenance requirements
- urban stresses

This variety of conditions eliminates many species and reduces the the number of suitable choices. To assist in the selection a guide to the most suitable trees has been included, in the handbook. Other trees, of course, can be planted depending on the local situation.

## Deciduous trees

Deciduous trees are particularly suitable for downtown streets in Ontario, where winter sunshine and summer shade are desirable. Their high-level foliage creates a major visual impact, but does not obstruct views or movement. Particular species can also contribute flowers, texture, bark and seasonal colour.

*Deciduous trees, like the linden in Perth, are attractive and functional additions to the shopping street*

Some of the other key considerations not to be overlooked are these:

- Growth Rate - Some deciduous trees need 50-80 years to reach maturity, while others can be fully grown in 10-15 years. Faster-growing species produce their benefits earlier, but tend to be short-lived and brittle. When planting slower-growing species, fairly large specimens can be used to shorten the time to maturity, but older trees are significantly more expensive to buy and install, and are more likely to have difficulty in adjusting to replanting.
- Mature Height - These trees can reach heights ranging from 10-45 m at maturity, although smaller sizes are more typical on city streets because of various urban stresses. Before selection, the mature dimensions of the trees should be related to the physical scale of the street, including the height of the buildings, the width of the pavement, and the facade-to-facade width of the street. The sense of intimacy that can be created and the impact on the views of the shopfronts should also be considered.
- Leaf Density - The foliage of these various trees ranges from nearly transparent (e.g. Honey Locust) to very dense (e.g. Norway Maple). Trees with denser foliage should be placed with care in downtown areas to avoid over-shading and obscuring the views of shopfronts.
- Mature size - For the best insurance of survival, deciduous trees at least 65mm caliper[1] in size should be used, and they should be protected by tree guards. The minimum height should reach at least two metres. When slow-growing species are planted, a minimum of 100 mm caliper recommended because street conditions may slow growth more than normal.

*Mountain ash have been widely used in commercial areas. This is in Collingwood.*

[1] Caliper: a term used to measure the size of trees, is the diameter of a tree about 15 cm above the ground.

## Coniferous Trees

Coniferous trees maintain their greenery year-round, and are particularly valuable in winter. Their low dense forms can be used for screening unsightly areas and for buffering winds.

*Coniferous trees, like these in London, can be strategically placed to provide year-round greenery*

Conifers are not well-suited for planting near streets and with the exception of Scotch pine, are intolerant to salt. Their wide base of foliage may block the views of pedestrians and motorists. Other possible hazards to pedestrians are the supporting wires and pegs needed to assist the shallow root systems to develop in its early years.

Conifers also require more maintenance. In winter they must be protected against excessive sun and wind to prevent "burning" of the needles, and during the summer growing season they need full exposure to the sun and well drained soils. Nevertheless, where space is available, conifers can provide a luxuriant rich landscape throughout the year.

### Recommended Downtown Trees

| | Botanical Name, Common Name, and Recommended Varieties | Hardiness Zone | Mature Height (Annual Growth Rate) | Comments |
|---|---|---|---|---|
| | Acer platanoides<br>**Norway Maple**<br>'Swederi' | 3 | 12-15 m<br>(0.3-0.6 m) | • provides dense shade<br>• has shallow root system limits turf growth<br>• withstands extremes in soils and pH levels<br>• tolerates pollution, especially ozone & sulphur dioxides |
| | Acer rubrum<br>**Red Maple**<br>'Autumn Flame'<br>'October Glory'<br>'Red Sunset' | 3 | 12-18 m<br>(0.3-0.6 m) | • has strong wood<br>• has good fall color & flowers in early spring<br>• intolerant to pollution |

| Botanical Name, Common Name, and Recommended Varieties | Hardiness Zone | Mature Height (Annual Growth Rate) | Comments |
|---|---|---|---|
| Celtis occidentalis<br>**Hackberry** | 2 | 12-18 m<br>(0.3-0.6 m) | • prefers moist, rich soils<br>• withstands all urban conditions, pollution, drought, pH variation<br>• has no serious pests<br>• not suitable for planters |
| Corylus colurna<br>**Turkish Hazel** | 4 | 12-15 m<br>(0.3-0.6 m) | • thrives in hot summers and cold winters<br>likes full sun & well drained loam<br>• tolerates urban stresses<br>• has good formal appearance<br>• branches to ground<br>• not suitable for planters |
| Fagus sylvatica<br>**European Beech**<br>'Asplenifolia' | 5 | 15-18 m<br>(0.1-0.3 m) | • has shallow roots that inhibit grass growth<br>• prefers well-drained, loose soils<br>• branches to ground<br>• provides dense shade<br>• suitable for planting in open pockets only |
| Fraxinus americana<br>**White Ash** | 3 | 15-24 m<br>(0.3-0.6 m) | • prefers deep and moist soils<br>• susceptible to many insects diseases |
| Fraxinus pennsylvanica<br>**Red Ash**<br>'Summit'<br>'Marshall's Seedless' | 3 | 15-18 m<br>(0.1-0.3 m) | • can withstand salt and sterile soils<br>• tolerates urban stresses once established<br>• can have high initial plant loss<br>• spreads with age to irregular habit |
| Ginko biloba<br>**Maindenhair Tree**<br>'Sentry' | 4 | 15-24 m<br>(0.1-0.3 m) | • is adaptable and durable<br>• has no know pests or diseases<br>• likes full sun<br>• grows with massive picturesque branches spreading to 3 m<br>• not suitable for planters |
| Gleditsia triacanthos<br>**Honeylocust**<br>'Sunburst'<br>'Moraine'<br>'Skyline'<br>'Shademaster' | 4 | 9-21 m<br>(0.3-0.6 m) | • intolerant to salt<br>• adaptable but best not planted in large groups<br>• has open light foliage with short trunk |
| Gymnocladeus dioicus<br>**Kentucky Coffee-Tree** | 4 | 18-23 m<br>(0.1-0.3 m) | • likes deep rich soils<br>• can withstand city conditions<br>• no serious pests or diseases<br>• drops pods and leaflets<br>• spreads 12 m with vertical branching |

| | | | | |
|---|---|---|---|---|
| | Phellodendron amurense<br>**Amur Cork Tree** | 3 | 9-14 m<br>(0.3-0.6 m) | • has shallow spreading roots<br>• withstands range of pH, drought, pollution |
| | Pyrus calleryana<br>**Pear**<br>'Bradford'<br>'Chanticleer' | 4 | 9-15 m<br>(0.3-0.6 m) | • tolerant to dryness and poliution<br>• does well in planters<br>• spreads 7-10 m |
| | Malus Species<br>**Crabapple**<br>'Dolga'<br>'Profusion' | Varies with variety 2-5 | 10-12<br>(3-0.6 m) | • susceptible to a broad range of diseases<br>• blooms profusely in various colors<br>• over 600 varieties with different forms |
| | Prunus Species<br>'Sergent Cherry'<br>'European Bird Cherry'<br>'Oriental Cherry' | 3 | 10-12 m<br>(0.3-0.6 m) | • has low branches |
| | Quercus rubra<br>**Red Oak** | 4 | 18-23<br>(over 0.6 m) | • has neglible taproot<br>• prefers sandy loam<br>• withstands air pollution<br>• essentially free of insects & disease<br>• spreads 12 m |
| | Tilia cordata<br>**Linden**<br>'Chancellor'<br>'Greenspire'<br>'Rancho'<br>'Glenleven' | 3 | 18-21 m<br>(0.3-0.6 m) | • prefers moist, well-drained soils<br>• tolerant to pollution & pH<br>• provides dense shade |
| | Ulmus americana<br>**American Elm**<br>'Patmore Ascending' | 2 | 18-24 m<br>(0.3-0.6 m) | • has fibrous spreading roots<br>• prefers rich, moist soils free of disease (esp. in SW Ontario) but best planted individually<br>• not suitable for planters |
| | Aesculus carnea<br>**Red Horse-chesnut** | 3 | 10-12 m<br>(0.3-0.6 m) | • likes full sun and well-drained soils<br>• best in larger areas<br>• has showy red flowers<br>• provides dense shade<br>• not suitable for planters |

Source: **Greenstreets,** The Street Tree Plan for Oakland, California, 1981. **Garden Trees,** Menlo Park, California.

## Lighting

Lighting is the single most potent tool for enhancing the character of the downtown area at night. It defines what can be seen outdoors at night, and in this sense it creates the night-time environment. Lights can also be effective in the daytime for special effects or special occasions.

*Attention to night-time lighting is an important consideration. (Dundas St. London)*

Night-time safety and security is, however, a basic requirement for lighting. Unfortunately, this aspect of lighting is often stressed at the expense of all other considerations, resulting in lights so bright that the potential for more creative use is lost.

The objective should not be to make night-time lighting as bright as midday, but to complement and enhance the revitalization of the area by creating lighting for the diverse activities of the downtown core at night.

Lighting can be used in a great variety of imaginative ways: to create a distinctive identity for the downtown area, to add visual order and structure, to highlight selected features for dramatic effect, and generally to contribute excitement to the night-time scene. Outdoor lighting technology has been dominated by the needs of vehicular traffic, with pedestrian lighting treated as an incidental benefit. But because their needs are different in many ways, it is important to note their distinctive purposes.

*Use of traditional lights for traffic lighting in Orillia.*

### Lighting For Traffic

Lighting for traffic is directed toward safety and is designed to bathe the roadway with a strong and uniform light. With current technology, this is best achieved by a regular spacing of lights suspended high above the road. To reduce costs, as well as glare, specifications call for high mounted lights, long spaces between lamp standards, and correspondingly high wattage lamps. A typical mounting height for street lights is about nine metres, and on a wide busy street the lights may be even higher.

Using this approach to all lighting downtown may cause problems. The strong all-pervasive light can be oppressive, the most efficient wattage lamps have an unnatural orange colour and the general pallor flattens all detail. Over-illumination also detracts from the downtown area by emphasizing the starkness and absence of people.

Because the distribution of light is hard to control, much of it spills over into the upper storey residential areas. The bright light also drowns out window displays, any accent lighting or special highlights.

For rights-of-way up to 30 metres wide, adequate lighting can be provided for traffic and pedestrians using lamps on low poles 4-5 metres in height. Where this is not possible, a combination of high and low level lighting should be explored.

## Principles for Pedestrians

There is much to be said for the visual relief created by varied lighting levels as part of the downtown experience.

Since pedestrians move more slowly than vehicles, they do not need the same depth perception. Physical obstacles along walkways can be safely seen at low illumination levels, and the eyes of a pedestrian adjust quickly to a wide range of light intensities.

Lighting in pedestrian areas should relate to the pedestrian. The primary lighting fixtures, which are an important decorative feature of the streetscape, should be mounted approximately 3-5 metres above the ground. To illuminate pedestrian walkways, these fixtures should be placed so that light patterns overlap at a height of 2 metres. This is particularly important as some luminaires have highly controlled light patterns.

This lighting should provide a modest and fairly even level of illumination throughout the pedestrian area. It should be sufficient to fully define the extent of the public areas, and to create a sense of safety and security.

Within this basic lighting environment, accent lighting should be used to add emphasis. Brighter supplemental lighting can be added to identify important or hazardous locations such as entrances, crosswalks, bus stops, turns, steps and ramps. Similar attention should be given to potential lurking places, such as hidden corners, laneways and isolated walkways. Here, lighting is for security more than atmosphere.

*These are examples of combined traffic and pedestrian lighting in Collingwood (l), Ottawa St. Windsor (c) and London (r).*

## Special Effects

Lighting can be creatively used to structure the night-time landscape and add visual order. Through repetitive use along a route, lighting can be used to convey a sense of direction. A noticeably higher level of light or a change in the colour of illumination can signal critical areas such as street intersections. A closer spacing of units at exits and entrances can direct movement. A change in the style of the luminaire can distinguish different parts of the site, and changes in height and scale can distinguish vehicular areas from the most intimate pedestrian areas.

Lighting can also be used to create a suitable ambiance for the downtown area at night. It should convey an inviting sense of warmth and activity. Incandescent, and other lighting fixtures can lend a festive atmosphere. To achieve this, many municipalities keep Christmas-type coloured bulbs strung in their trees throughout the year.

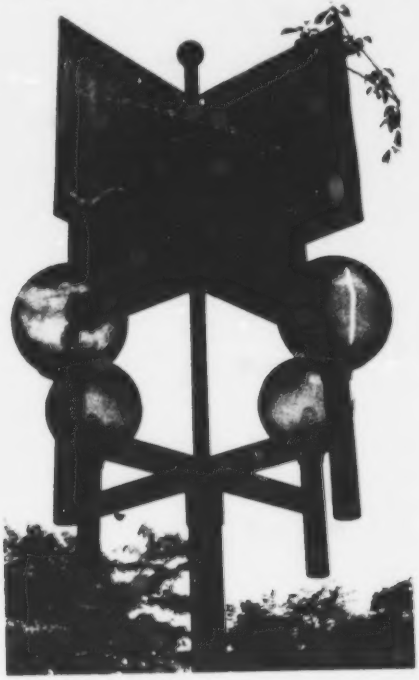
The floodlighting of prominent buildings or other features can make a striking impact on the night scene. To accentuate the features, the principle beam of light should come from one direction and some distance away, preferably at an angle of 45-60 degrees to the object illuminated. When more than one source is being used, the beam should be coordinated.

Trees and other landscaping can also be highlighted through concealed lamps. Trees are best shown by floodlights from a distance or by projectors underneath the trees, but away from the trunks. Flowers and shrubs are best illuminated with fixtures set in the beds and screened from view.

Extra lighting for special events may be needed, and during the construction phase, additional outlets can be placed on public lighting standards, street furniture and in planting areas. Because the metal conduits and boxes are unsightly and prone to vandalism, they should not be installed in a free-standing and exposed condition.

Low-mounted lighting equipment must be well designed to avoid accidental disturbance, vandalism, and electric shock if damaged. Sunken units must be watertight, and precautions should be taken to avoid over-heating. Units at ground level should not obstruct movement, nor produce glare in the eyes of pedestrians.

*Decorative lighting has been used to highlight Queen Street in Sault Ste Marie (l) and banners can be combined with lighting for special effects (Toronto).*



## Fixtures

Lighting can contribute to the structure and appearance of the downtown area during the day as well as at night. As one of the most visible elements in the daytime landscape, the lighting system should be compatible with all other street furnishings as well as buildings in the area. Certain equipment suits updated contemporary settings, while historic reproductions are available for commercial areas where heritage aspects are the chief theme.

The two principle design components of most outdoor lighting fixtures are the luminaire and the post. These two should work together as a visual unit. The luminaire is the component that encases the light source, usually glass, and performs the practical function of modifying and controlling the light source. It is also the most decorative feature of the lighting system, with alternatives ranging from contemporary to "Victorian".

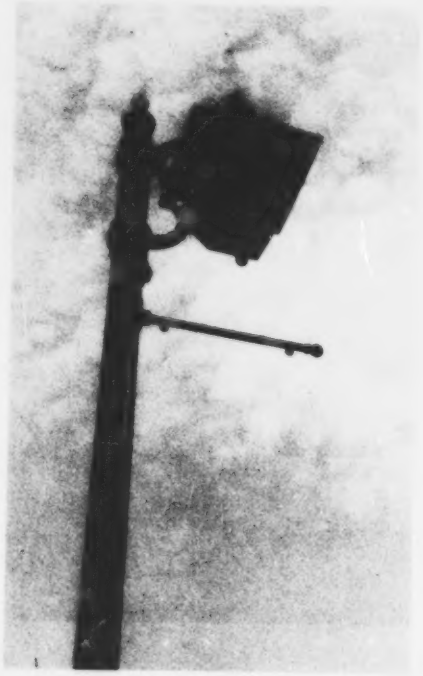
Lamp posts are made from a wide variety of materials. Single purpose posts have increasingly been made from aluminum and lightweight steel. High-strength steel and concrete are functional and economical, but are generally less attractive. Cast-iron has been used in lamp posts for along time, and is currently being used in high quality reproductions of traditional styles and designs. Wood is also beginning to reappear, largely as a material in contemporary design.

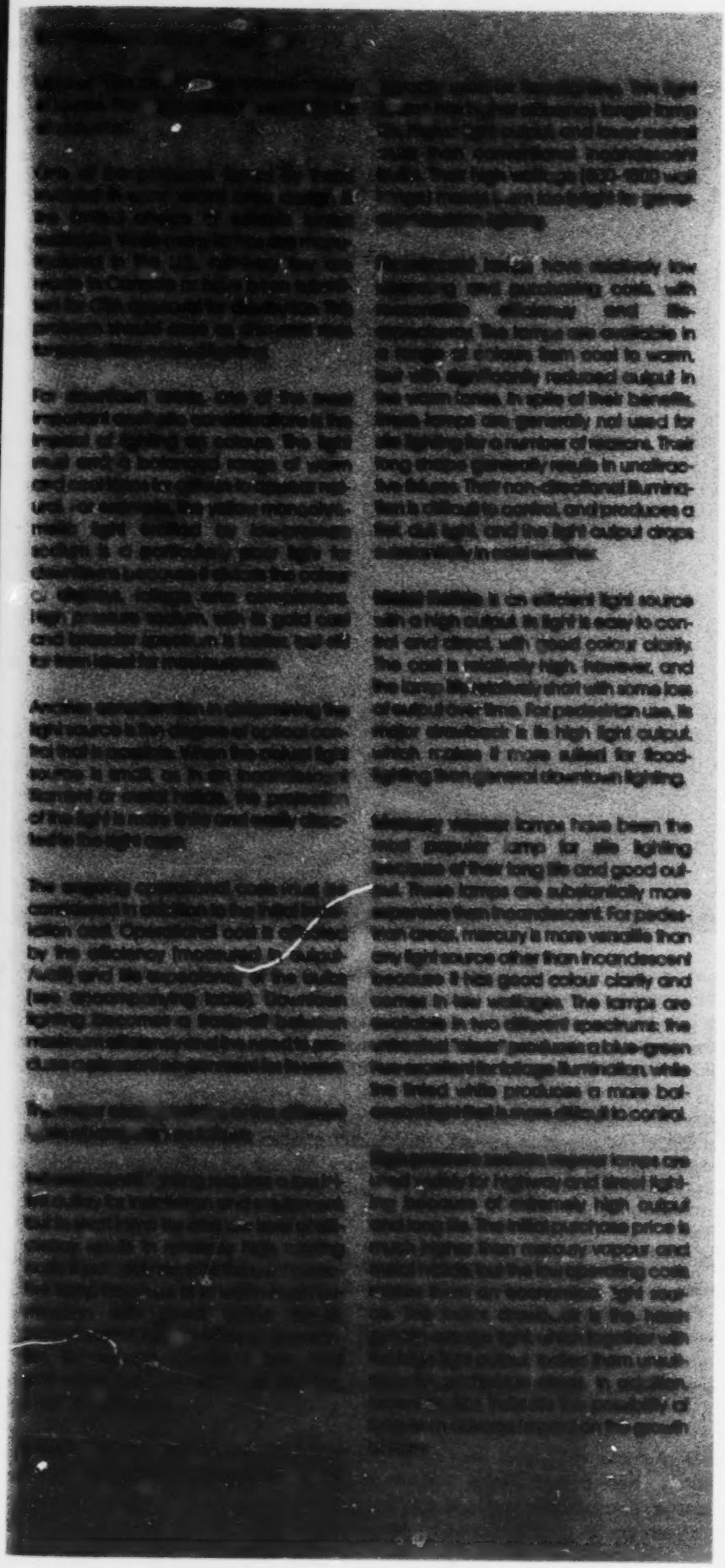
Low profile lights are a recent technique with increasing popularity. These low-to-ground units (60-90 cm high) provide a strong focussed light because they are below eye-level. They are suitable for marking routes and lighting landscaping at night. Brightly painted, they can define pedestrian pathways during the day.

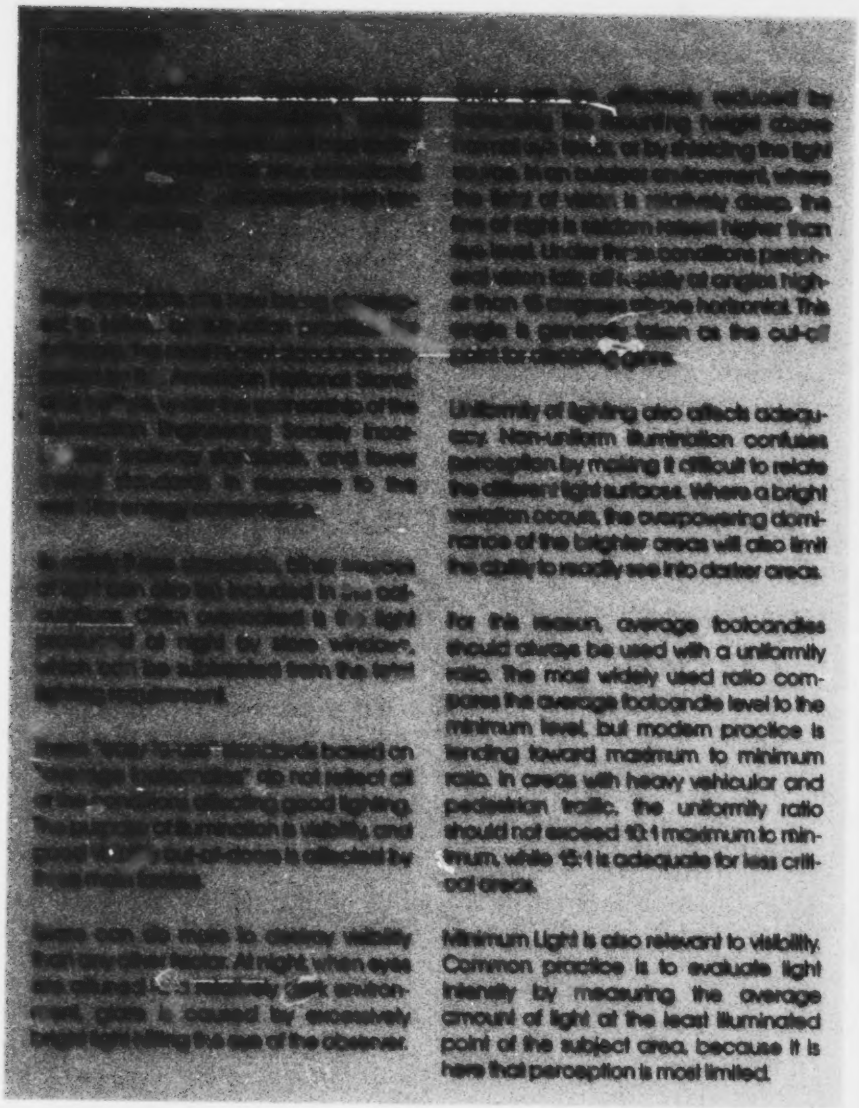
Light fixtures should be made of materials hard to vandalize, weather-resistant for year-round exposure to rain, snow and sun. They also need to be well-built, secure, durable and rust-resistant for permanence and attractiveness. They should also be self-draining to quickly get rid of rain or melting snow, shielded so that the light source is not visible, and easy to maintain.

As in so many aspects of commercial area improvements, municipalities are advised to get assistance from trained professionals able to integrate the technical and aesthetic considerations.

*There are a wide range of light fixtures available from historic reproductions to contemporary models. (l to r) North Bay, Belleville and Essex.*







Uniformity of lighting also affects adequacy. Non-uniform illumination confuses perception by making it difficult to relate the different light surfaces. Where a bright variation occurs, the overpowering dominance of the brighter areas will also limit the ability to readily see into darker areas.

For this reason, average footcandles should always be used with a uniformity ratio. The most widely used ratio compares the average footcandle level to the minimum level, but modern practice is tending toward maximum to minimum ratio. In areas with heavy vehicular and pedestrian traffic, the uniformity ratio should not exceed 10:1 maximum to minimum, while 15:1 is adequate for less critical areas.

Minimum Light is also relevant to visibility. Common practice is to evaluate light intensity by measuring the average amount of light at the least illuminated point of the subject area, because it is here that perception is most limited.

**American Standard Practice Recommendations for Average Maintained Horizontal Illumination for Roadways and Walkways (1977).**

| Classification | Footcandles: Commercial | Intermediate | Residential | Park |
|---|---|---|---|---|
| Major road | 2.0 | 1.4 | 1.0 | – |
| Collector | 1.2 | 0.9 | 0.6 | – |
| Local road | 0.9 | 0.6 | 0.4 | – |
| Alley | 0.6 | 0.4 | 0.4 | – |
| Sidewalk | 0.9 | 0.6 | 0.2 | 0.5 |

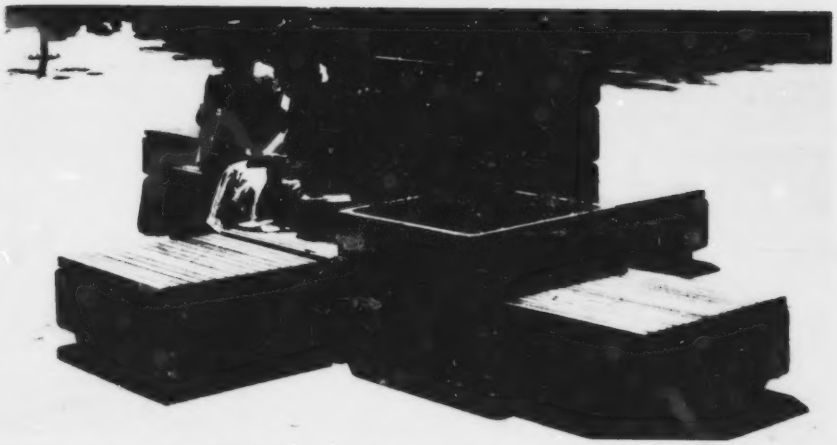
Note: The standards are based upon average values for the illuminated area. The degree of variation permitted is specified by the uniformity ratio. Greater uniformity is required for high speed roads than for local streets and sidewalks. The "uniformity ratio" for roadways should be less than 3:1 (average : minimum), except in local residential streets, where it can be as high as 6:1. For sidewalks, it should be less than 4:1.

Maintained values are defined as those existing just before relamping and cleaning.

## Street Furniture

All street furniture has a utilitarian role: security, traffic control, housekeeping or amenity, as well as a decorative and sculptural dimension. Together, they help give the downtown area style. Street furniture adds richness and variety to public spaces, giving the commercial area human scale that is hospitable and welcoming.

Street furniture commonly includes benches, planters, litter containers, public signs, flags and banners, news stands, bicycle racks, bollards, fire hydrants, phone booths, pedestrian shelters and fountains.



*The selection and siting of street furniture should be carefully co-ordinated with the design theme and surrounding architecture*

When selecting street furniture, consideration should be given to these criteria:

- **Compatibility:** The furniture should contribute to a unified environment. The materials, colour and scale should all be co-ordinated, and consistent with the desired concept for the commercial area.
- **Function:** The furniture should satisfy current performance standards, including those for the disabled.
- **Durability:** All outdoor equipment should be capable of withstanding harsh treatment by the weather, as well as intensive use and abuse.
- **Cost:** When evaluating the furniture, the longer-term maintenance, repair and replacement costs should be considered, as well as the immediate acquisition costs.

The importance of durability cannot be overemphasized. It may be false economy to select less expensive furniture that needs replacement in just a few years. Where budgets are tight, the purchase of the furniture should be spread over a number of years. A check with other municipalities using the selected items will provide information on durability and maintenance costs.

The goal in selecting street furniture is to produce a unified environment. This calls for minimizing the variety of objects that clutter downtown streets. The clutter is unsightly, uses valuable pedestrian space, and is hazardous for the handicapped. It also increases maintenance costs by attracting litter, and making clean-up and snow removal more difficult.

The selection and siting of street furniture should be carefully coordinated. In placing the various elements of street furniture, a priority should be to locate them outside of the main pedestrian traffic areas where they interfere with pedestrian flows and are a hazard to the handicapped, particularly at corners and other crossing points. Wherever possible, they should be grouped together in less intrusive positions, either against buildings, in alcoves, or in pedestrian nodes where they can be shielded by landscaping or other furniture.

The elimination of unnecessary equipment is also important. For example, the number of parking meters can be cut in half by mounting two meters on one pole. Oversized planters can be replaced by planting trees directly in the ground. Signs can be consolidated on fewer poles, attached to buildings, or mounted on lamp posts.

## Benches

Benches and seating are probably the most popular form of street furniture. Not only do benches provide an opportunity to rest and wait comfortably, but they also encourage people to eat lunch, chat, and watch the passing crowds.

Seating areas should be just off the main pedestrian routes, where they are near the main areas of activity but do not interfere with pedestrian traffic flow. A good view of the passing scene is an important prerequisite. Sunny and shady locations will give people a choice, depending on the weather or time of day. Litter containers should be close at hand, and sensible planting adds to the sense of relaxation and enjoyment.

Benches should be grouped together to provide a variety of seating arrangements. The seating should be arranged with an appreciation of the people who will use it, not according to some aesthetic order or design. Some thought should also be given to permanent shelters for rain, snow and wind over some seating areas, particularly at bus stops.

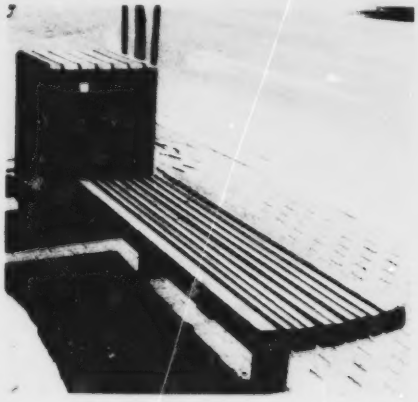
**Guidelines for Benches:**[1]

- Seating heights of 45-50 cm are preferable.
- Seating surfaces less than 30 cm wide are uncomfortable for many adults, while widths beyond 45 cm are awkward for normal leg lengths.
- Arm and back rests increase comfort. Backs should be 35-40 cm high to give support.
- Seat surfaces should be open or slope one percent to shed water.
- A recessed base 10 cm deep for heels makes sitting more comfortable and rising easier.
- Leg space 60 cm wide should be provided so that those seated do not block pedestrians.
- Back and arm rests are essential for many disabled and elderly, who will use them for support in sitting and rising. For this reason, the bench should also be fastened securely to the ground.
- A level hard-surfaced area 90 cm wide next to a bench will allow a person in a wheelchair to sit next to someone using the bench.

Comfort is important in selecting the materials. It should not readily transmit heat or cold. Wood is better than concrete or steel because of its low degree of temperature fluctuation. Dull and light coloured materials are generally cooler when in direct sunlight.

Seats and benches appear to be particularly vulnerable to abuse. Plastic, fibreglass and painted surfaces are readily scratched and marked. Dark stained surfaces seem to disguise marks, and they need the least amount of refinishing. Seats should be secured to the ground (not by chains), but also be capable of being moved for maintenance.

*A variety of contemporary bench designs in Collingwood (l), Belleville (c) and Toronto (r)*



[1]The American Society of Landscape Architects Foundation **Barrier Free Site Design** U.S. Government Printing Office, Washington, D.C. 1974

## Litter Containers

Litter containers are essential downtown. The conventional plastic or metal containers look out of place in upgraded downtowns. An increasing number of well-designed units are being fabricated which can be coordinated with the other street furniture.

The container should have a decorative but functional outer structure, with an inner basket which can be easily removed, cleaned and/or replaced. The outer structure should conceal litter and be a coherent part of the street furniture. A lid or flap may be added to reduce the smell and the number of insects attracted by the contents. Plastic bags can be used to keep the inside of the container clean, but these should be properly fitted. A drainage hole is useful in the bottom of the container to allow periodic flushing.

In the design of litter containers some trade-offs must be reached between protection from the weather and ease of use, removal and cleaning. Open-topped containers are the easiest to use, but are the most unsightly and vulnerable to the weather. Covers that are highly effective for weather protection can discourage use of the litter bin. Some hinged door openings are difficult for handicapped people to operate, or are too small to accept all of the potential litter.

To be accessible to the disabled, the openings to trash containers should be 75-90 cm from the ground and operable by one hand.[1] Each container should be securely anchored to the ground or attached to a sturdy post, so the handicapped can use it for support. All receptacles should be reachable from a hard even surface.

The container should be of a reasonable size. Small containers are too easily filled, while large ones are visually and physically intrusive. The design should not be so subtle that the intended function is disguised; clearly marked containers are used much more than camouflaged containers. The container should be fixed in place to prevent it being pushed over or blown over by the wind.

The containers should be located where litter is generated, and where they can be integrated with other street furniture and easily emptied. Most suitable locations are near the main gathering places, including sitting areas, food stands and bus stops. They should be placed near but not next to seats. Litter containers also seem to be effective when placed in zones of slow moving pedestrians.

Litter containers are invariably subject to abuse in busy areas, and containers should be sturdy enough to resist the effects of ill-use, as damage seems to attract further abuse. Vandalism can be discouraged by proper cleaning and maintenance. Wall-mounted containers are less vulnerable than free-standing ones.

*Good litter container designs in Belleville (l), Collingwood (c) and Toronto (r).*

[1] Jorgensen, Jay. **Accessible Facilities** in Centre for Design Planning. Streetscape Equipment Sourcebook. Washington, D.C. 1974

## Flags and Banners

Flags and banners are a relatively inexpensive form of display that adds colour and movement to the downtown area. They are a distinctive and attractive way of identifying the commercial area, and lend a certain air of celebration and activity. They are also changeable to suit the seasons or special events.

A range of durable and weather-resistant materials is available for year-round use. The images can be painted, silk-screened or appliqued.

Banners and flags can be mounted in a variety of ways. The most common is vertical mounting on separate poles. They can also be hung horizontally off arms extending from lamp standards or on guy wires strung across the street.

The movement of flags and banners is a necessary part of their attractiveness. For this reason, they should not be rigidly mounted on top and bottom. Completely free movement will, however, eventually tend to cause fraying as the material is repeatedly pushed against the supporting structure. To reduce this problem, flags and banners can be secured by a wire at the bottom, by adding weights or attaching it to a rigid but hinged arm. Air vents can also be cut into the fabric to reduce the wind velocity.

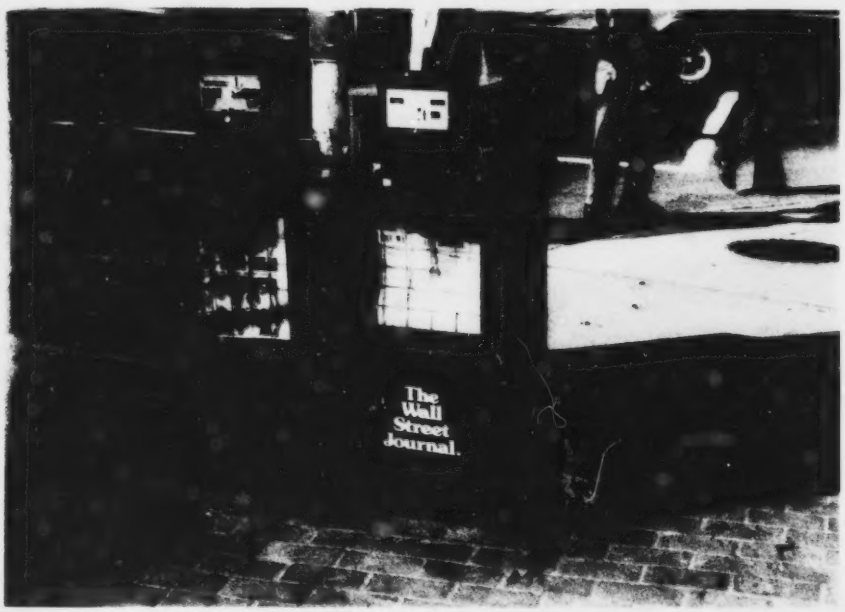
Individual businesses should also not overlook the prospect of using banners. The distinctiveness, changeability and inexpensiveness makes them an ideal form of signage.

Flags and banners should be regularly monitored for fading and general wear and tear. Faded and tattered banners detract from the revitalized image gained from downtown upgrading.

*Flags add a festive quality to the commercial area (Midland, (l) and Perth, (r).*

## Newspaper Stands

Vending machines should not be permitted where they interfere with pedestrians or clutter the streetscape. They should be located against buildings, preferably in building entrances or alcoves, or associated with seating and landscaped areas. Consideration should be given to setting them in frames or boxes that complement the rest of the street furniture. Suitably placed metal rings should be mounted in the pavement for securing the boxes.




*Newspaper stands often clutter the pedestrian route*

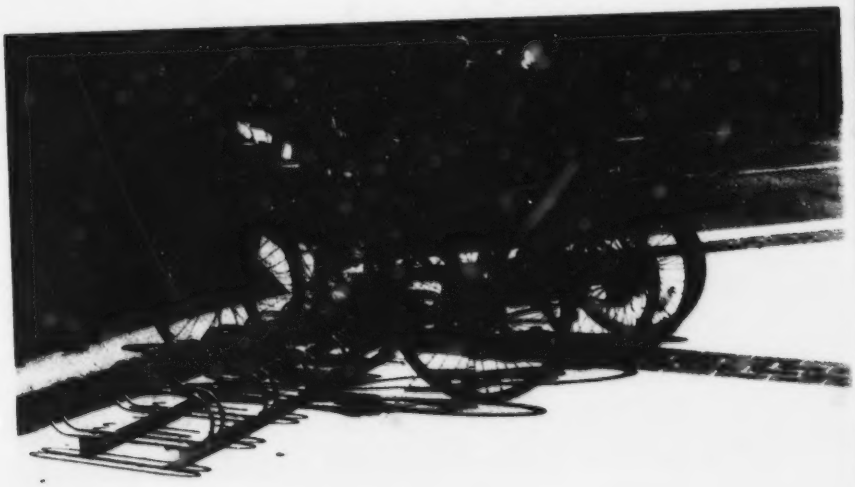
## Bicycle Racks

Bicycles are an increasingly popular form of transportation which should be accommodated in downtown areas. If adequate provision is not made, bicycles will be found chained to every secure object, often causing clutter and a hazard for pedestrians.

*Recent bicycle rack designs are simple and sturdy. (Toronto, (l) and Kingston, (r)*

Simplicity in design is as important for bicycle racks as it is for all street furniture. Well designed racks can be sculptural objects when not in use, and they can be free-standing or part of another item of furniture. They should be sturdily constructed, firmly anchored to the ground, and adequately equipped to handle chains or cables.

Bicycles will be parked as close as possible to the destination, which means that racks in central parking areas are not well used by most casual cyclists. It is advisable to determine the most used areas, rather than distribute bicycle racks indiscriminately throughout the downtown area. Pockets off the main pedestrian areas are appropriate locations, when they are outside the main pedestrian flow but close enough to the destination to be kept under surveillance.



*Small spaces off the main pedestrian routes are suitable locations for bicycle racks.*

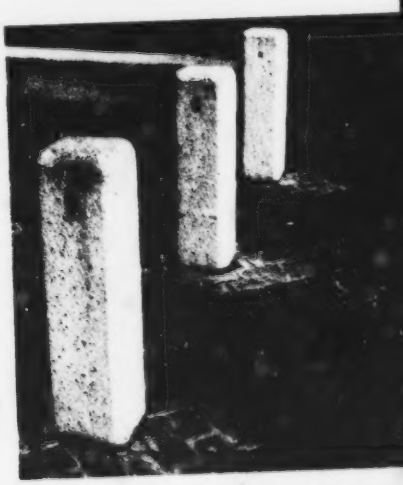
## Bollards

Bollards are devices for separating the pedestrian and traffic areas. They can serve two purposes: preventing vehicles from entering the pedestrian zones or signalling to the pedestrian the edge of a traffic zone.

Bollards are most commonly used where vehicle access is required from time to time. Removable bollard mountings should be installed on separate foundations from the rest of the paving.

Because bollards can present barriers and hazards, care must be taken in their placement. As with any obstruction placed in the travel path, they should be high and massive enough to be seen and not tripped over. A minimum height of 80 cm is recommended. Bollards should also be spaced at least 80 cm apart to allow for pedestrian and wheelchair access. When bollards are linked by chains, the chains should be high enough not to trip pedestrians.

*A functional item, bollards can also be attractively designed.*



## Fire Hydrants

The conventional fire hydrant is another frequently encountered sidewalk obstruction. It adds to the clutter of street furniture and is almost impossible to disguise.

Wall-mounted designs in stainless steel or aluminum are now available, and these are less intrusive and less hazardous than traditional models. Whenever possible these newer fixtures should be incorporated into the commercial area plan. The location of fire hydrants are governed by fire fighting requirements for the water mains, but it should be possible to negotiate suitable locations outside the main pedestrian areas. Painting conventional hydrants with colours that harmonize with other street furniture is also an alternative.

*Wall-mounted hydrants reduce sidewalk clutter.*

## Telephone Booths

Telephone booths should be located at key points throughout downtown. They should be placed where they blend into the surrounding area, but still provide the user privacy and shelter from the weather.

The standard small enclosed telephone booth cannot be used by a person in a wheelchair, and is difficult for anyone with crutches or braces. Clear access 80 cm wide should be provided. If the booth is recessed in a wall or alcove, a clear space 1.5 square should be provided in front of the receiver so a wheelchair can turn around. The dial and coin slot should be no higher than 1.2 m while any shelf or obstruction under the telephone should clear the floor by 80 cm.[1]

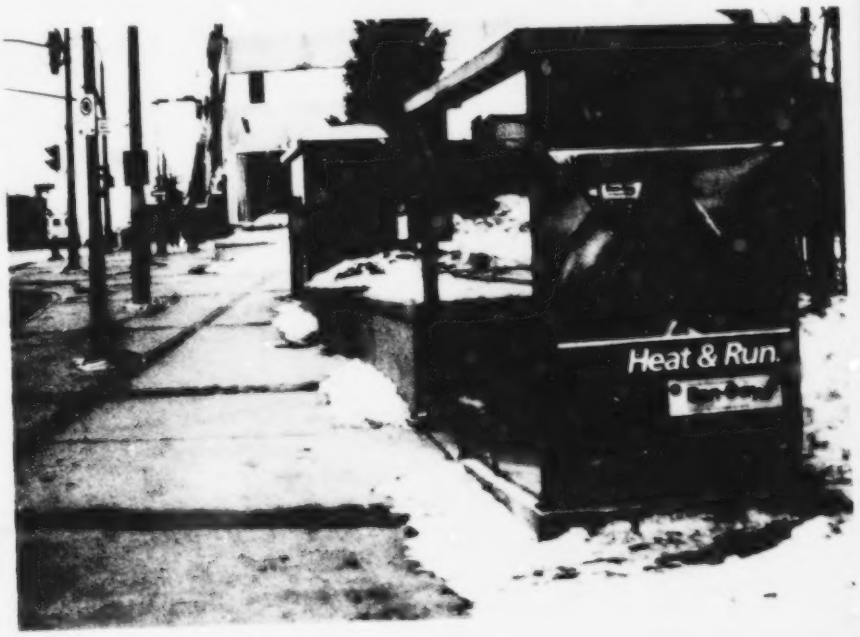
[1] Jorgensen, op. cit.

## Pedestrian Shelters

Bus shelters are a common form of pedestrian shelter in most communities. They can also be provided at other gathering places to give protection from wind, rain, snow or sun. They can also be used visually to define a particular public space.

Shelters commonly have a roof and one to four walls, and can be constructed of many materials. The shelters should be designed to complement the general theme of the area, and should be well lit at night. Regular maintenance is important to keep them clean and prevent them being used as community meeting places. Security is best served by avoiding solid walls and blind corners. Drainage from the roof should be designed to avoid splashing pedestrians.

*Shelters should be located away from the pedestrian route and may be combined with advertising (Guelph, r), or designed to fit a specific situation (Toronto, l).*




Bus shelters have been provided by advertising companies in many Ontario communities. In return for providing the shelter and its maintenance, the company has the right to advertising space. While community opinions vary on the philosophy of allowing more advertising messages in shopping districts, the added colour and information seems welcome, and if the advertising panel is illuminated it adds a measure of security at night.

Bus shelters should not be located where they block pedestrian traffic. On narrow sidewalks and along streets with restricted rights-of-way, it may not be possible to accommodate them, as an overall width of 3-4 metres will be needed for a shelter while maintaining unimpeded pedestrian flow. Provision should be made for the handicapped, which should include adequate entrance width and information panels low enough to be read from a wheelchair.

Radiant heat might be considered. A timed operation geared to rush hour cycles is appropriate for daily periods of high activity, while a short-term push button system is recommended for slack times. Timed operation conserves energy and discourages lingering in the shelters. Both electric and gas-fired radiant elements can be used, but the lower installation costs of electric heating favours this method.

## Decorative Fountains

ountains can be very pleasant features in the urban scene. The movement and ound of falling water, as well as associated lights and sculpture, are especially ttractive and popular with shoppers. Although one of the most unique down- wn accents, fountains can be troublesome and expensive. In Ontario, they are perable during winter months without special equipment. Generally speaking untains are perceived to be spring and summer pleasures, complemented by wers, shrubs and trees, and the outdoor life that comes alive when winter is er.

vell designed and interesting, and if kept free of litter, the winter fountain can be pleasant piece of streetscape sculpture and a reminder of the long pleasant ys of summer to come.

hen in use, there is the risk of contamination, and in all but the simplest of ntains, some filtration is needed to take care of normal dirt accumulation. ds can be neutralized chemically and some other contaminants can be filter- t out, but it is often more cost-effective to simply replenish the contaminated ater on a regular basis.

## arking

e amount of parking needed in each commercial areas should be carefully searched. Commercial areas typically need less parking than out-of-town shop- ng centres of comparable size. The availability of public transit will reduce the umber of customers using cars. In addition, the mix of uses will permit "sharing" f parking for a number of different uses during the day and week.

Municipalities will often base their parking needs on standards from other sources, but unless backed by some local knowledge, or surveys, these second-hand standards may be an unreliable measure of the municipality's downtown parking requirements.

A better approach might be to refer to the parking guidelines in the Commercial Parking Guidelines, prepared by the Ministry of Municipal Affairs and Housing. These guidelines are based on a survey of parking issues, approaches and standards used by municipalities throughout Ontario, as well as other sources. Reduction factors have been included to adjust for the possible impact of shared use and transit usage in downtown areas, along with policy options to deal with the provision and management of required parking.

Source: Commercial Parking Guidelines, Ministry of Municipal Affairs and Housing, 1985.

Parking demand in commercial areas can best be determined by undertaking a parking survey. There are a number of established survey techniques, which vary according to accuracy and cost.

The simplest methods are an occupancy count of spaces or a "licence plate" survey during critical parking periods when 100 percent occupancy is expected. More accurate methods are based on direct surveys of motorists, either through face-to-face interviews or questionnaires returned by mail. These can supply valuable information on the trip purpose, duration of visit, walking distance, origin and destination of the trip.

In determining requirements, a distinction should be made between short-term and long-term parkers. The short-term parker, such as the shopper and business customer staying for an hour or two, is vital to the economic well-being of the central core. Priority should be given to these parkers by providing parking spaces as close as possible to their destinations.

In cases of conflict with the long-term parker, usually downtown employees, priority must be given to short-term users by strictly enforcing time-limits.

In developing solutions to the problems of downtown, municipalities should look beyond the provision of more parking, and examine how they can best utilize their present parking facilities. For many downtown areas, parking shortages may be a perceived problem rather than a real problem, and one that can be overcome by better management.

Parking is provided in a wide variety of forms: on-street curbside spaces, surface parking lots, multi-storey garages, and underground garages are the most common.

## Street parking

In general, most small and medium-sized communities will solve their commercial area parking problems by a combination of on-street parking and surface lots, because commercial land is relatively inexpensive and plentiful. For this reason, this section deals with on-street parking, and the remainder of the chapter primarily with parking lots.

The general trend has been to reduce on-street parking, either to improve traffic conditions, or more recently, to improve sidewalk amenities. The removal of on-street parking is always a controversial undertaking. Merchants see it as affecting their economic viability, and maintain shoppers see main street parking as a major convenience. There is always the fear that the removal of on-street parking will cause shoppers to look elsewhere.

Merchants should be justifiably concerned when parking is removed to speed up traffic movement, as faster moving traffic is unlikely to generate any extra retail trade. This raises the fundamental question about whether main street should be used primarily to serve the local community or to channel traffic through it. Before parking is removed for this purpose, all other options should be explored, including the development of a by-pass route.

With modest reductions in parking, significant improvements can be made to the attractiveness and amenities of the shopping street. There is enough experience in Ontario to demonstrate that this trade-off is beneficial to the commercial area.

There are a number of possible methods for retaining or increasing the supply of on-street parking:

- switching from parallel to angled parking
- eliminating unnecessary curb parking restrictions
- reducing parking bay sizes to reflect the use of smaller automobiles
- enforcing a time-limitation of parking spaces to ensure high turnover of cars.

The problems associated with curb parking primarily involve delays and accidents with moving traffic. Part-time parking prohibitions may be needed during peak traffic hours, which fortunately fall outside peak shopping times.

Parking or standing may be totally prohibited in locations near intersections, driveways or bus stops. To further reduce the risk of accidents, parallel parking spaces should be wide enough to include the opened car door. Parking stalls should be clearly marked with white lines as a warning to motorists.

The choice of parallel, diagonal and right-angled curbside parking involves trade-offs in the traffic flow and the number of spaces which can be created:

- Parallel parking is favoured by traffic authorities because it takes the least amount of the right-of-way, and is safest for drivers when leaving.

*Parallel parking in Milton.*

- Angled parking, in comparison, is easier to enter but not as safe to leave, as the driver's view of the road is partially blocked. The degree of conflict and number of spaces increase with the angle, with 90° having the highest of both. Angled parking, despite these drawbacks, is acceptable and remains common on streets used for local traffic, and in smaller downtown areas.

*Angle parking on Hurontario Street in Collingwood.*

In laying out curbside space, the other competing uses should also be considered. These include bus stops, delivery zones for commercial vehicles, drop-off and waiting areas for private vehicles and taxi stands. In some places these functions can be combined.

## Parking Lots

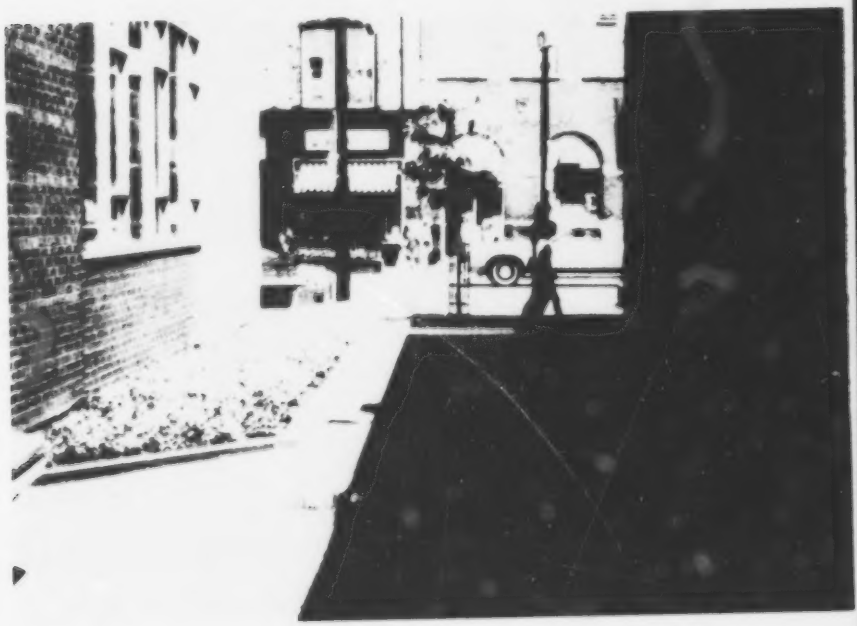
The location of the parking lot relative to the final destination is critical. There is no single rule. The walking distance that will be accepted seems to depend on the parking and travelling time. For example, workers parking all day are more willing to accept longer walking distances than shoppers, and shoppers at a regional centre will walk farther than those at a neighbourhood centre. For the same reason, the size of the community also has a definite influence on the accepted walking distance.

Source: Ross, M.M. "Principles for Downtown Parking" in Nykor and Przybylowski. "New Directions: Proceedings of a Symposium on Downtown Cores. Ministry of Housing, Toronto, 1974.

There appears to be less tolerance in smaller communities, where the driving distances are relatively short, and the walking distance noticeably affects the door-to-door travel times.

Parkers also have consistently shown a marked preference for on-street parking over surface parking lots, and for both of these over multi-level storey parking garages. In large part, this preference is due to the time needed to park the car and get to the point of destination, and to the complex maneuvering required in multi-storey or underground garages.

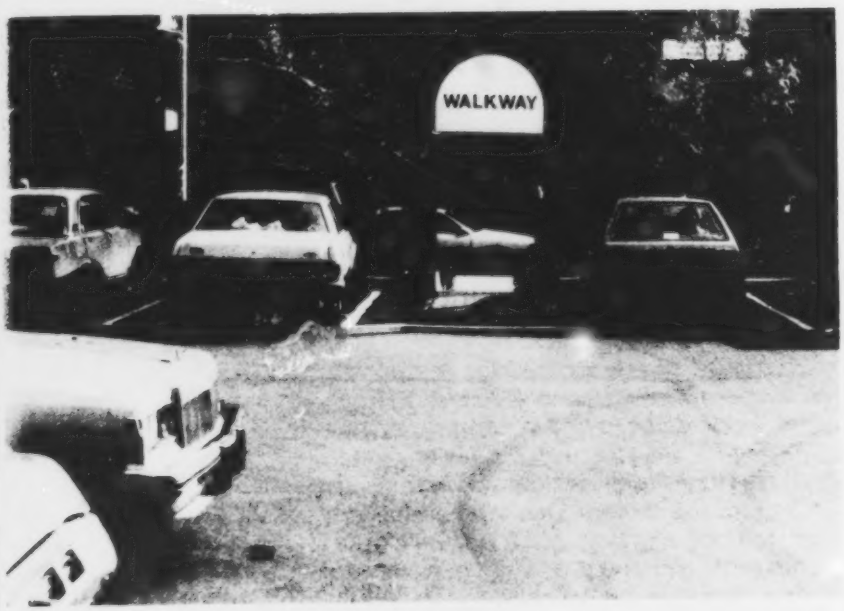
As a guideline, most of the parking facilities for short-term shopping and business parkers should be located within the above average distances of their destination. Where appropriate, measures should be used to ensure the spaces are not taken by long-term parkers.



*Mid-block alleys can successfully be converted to a pedestrian route linking the main street with parking in the rear of the stores (Perth).*

Walking distances are also affected by other factors. The accessibility of the off-street parking can be improved by providing rear entrances to shops, paving and the lighting of alleys for pedestrian use, and developing public arcades through shops on long blocks. Such techniques can significantly reduce walking distances, and the perception of walking distance as a negative factor in the downtown experience.

The key dimensions for a parking area are set by the parking stall and aisle. Together these determine the overall parking bay module (i.e., the distance needed to accommodate two spaces and central aisle).




*Well marked pedestrian exits improve public perception of and use of parking lots.*

**Conventional Standards for Parking Lot Sizes**

Conventional practice for parking lots calls for selecting a standard space that will accommodate almost any car expected to use the space. Short-term parking is generally provided with a wider stall to lessen the possibility of congestion in the high turnover areas caused by maneuvering in and out of the space. The wider stalls are also more convenient for customers with packages.

The aisle width required to allow convenient parking and unparking maneuvers varies according to the parking angle and the stall size. The minimum width is 3.3 m for one-way aisles and 7.3 m for two-way aisles. These figures assume cars pulling into the stalls rather than backing in. Backing into the stall requires less aisle width, but the majority of drivers are reluctant to do this.

Sources:
Urban Land Institutes, **The Dimension of Parking**, Washington, D.C. 1979.
Toronto Parking Authority, **Guidelines for the Design of Municipal Car Parks**, n.d.

## Parking Lot Standards for Smaller Cars

The smaller compact car will have an increasing impact on the design of parking areas. With the trend towards energy efficiency and pollution control, the average size of automobiles has decreased considerably over the last ten years. By 1984, the proportion of large to small cars was about 2 to 1.

A new compact car can be efficiently accommodated in a much smaller parking space than an older car. It differs not only in its critical size dimensions (specifically the clearance for open car doors), but also its turning maneuverability. These two factors, in turn, reduce the stall size and the aisle width needed.

Because of these different characteristics, it is difficult to use a single standard stall size for all cars. If the stall is designed for older, large cars, it will waste space now and even more so in the future. On the other hand, if it is designed for smaller vehicles, a large proportion of users will encounter difficulties in utilizing the space. These difficulties can lead to traffic congestion, minor accidents and improperly parked cars.

To take account of this change, standard parking spaces are being reduced and the provision of different sized spaces which are clearly marked for compact and older, large cars is becoming common. The standards adopted by the Toronto Parking Authority, for example, reflect this trend.

In order to use space efficiently, the design of new parking facilities should take account of the down-sizing to date, and allow for conversion of the lot to accommodate smaller cars in the future.

There are two basic alternatives:

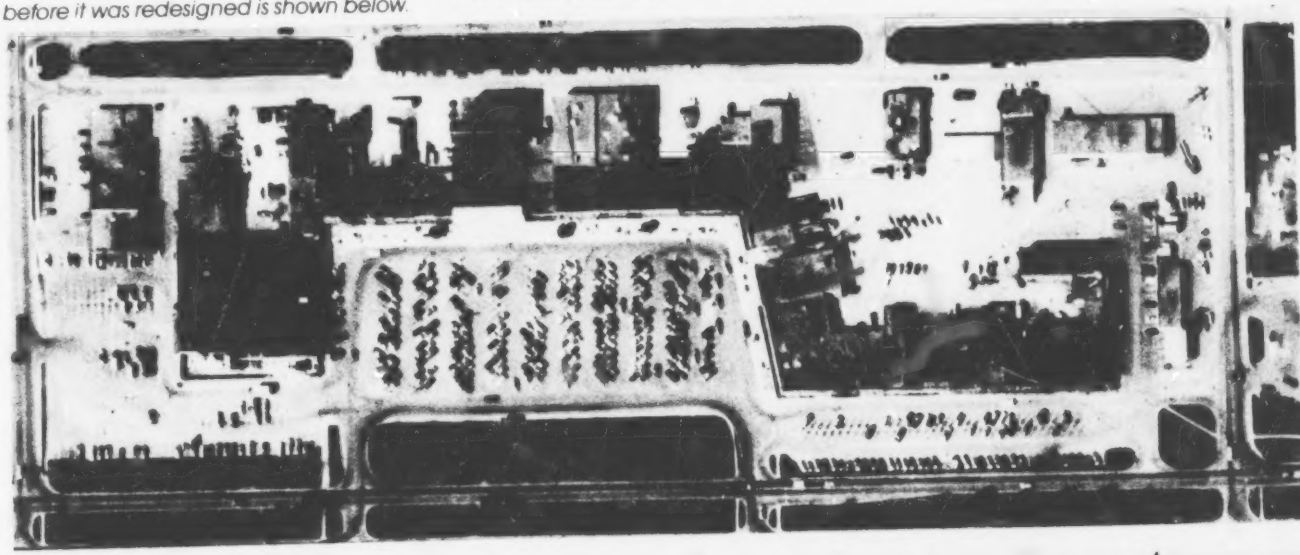
- Segregating the cars in two separate areas. This alternative is appropriate for surface parking areas, which can be adjusted without great cost for further changes in the mix or car sizes.
- Providing alternate rows of diagonal spaces for older, large cars, and 90° spaces for small cars. The large spaces can be converted in the future to small spaces with no change to the layout of the parking facility. This alternative should be considered in any multistorey parking area, where the basic layout will be fixed by the structure.

A word of caution is needed on down-sizing. In northern Ontario, the increasing proportion of trucks and vans may eliminate the opportunity to reduce space sizes. Also heavy snowfalls and longer winters may make reduction in size less feasible.

### Layout

The layout of surface lots should be simple and straightforward. The main factor

*The main parking lot in Ajax's core area before it was redesigned is shown below.*



that influences the layout of a parking area is the dimension of the standard bay module needed for the aisle, plus two parking stalls. This, in turn, depends on whether right-angled or diagonal parking is used. Professional opinion varies over the relative merits of each.

While the site will influence the choice, conventional practice seems to favour the 90° angle parking for the following reasons:

- Two-way aisles can be used because cars from both directions can drive forward into 90° bays. Two-way aisles are considered more flexible and less confusing to drivers. They also provide greater visibility for the driver, greater flexibility in maneuvering into and out of a diagonal parking stall without restricting traffic in the aisles, and a larger pedestrian walking area.
- The 90° stall in most cases takes somewhat less floor area than the diagonal space. Therefore, more spaces at 90° can be provided in a given area.

These considerations must be balanced against the merits of diagonal parking:

- Parking patrons generally find maneuvering into and out of a diagonal parking stall easier, because it can be made in a single free-flowing movement. As a result of this, there is less likelihood of traffic congestion.
- Diagonal parking utilizes one-way aisles, which permit parkers to follow a linear path through the parking area to find a space.
- Diagonal parking requires a narrower overall bay width (i.e., two parking stalls plus aisle), which provides greater flexibility in laying out smaller sites.
- In certain configurations (i.e., interlocking stalls at under 300) diagonal layouts are more economical than 90° parking because the narrower one-way aisle can be used. Also, a narrower stall is possible because the swing of an opening door clears the adjacent vehicle.

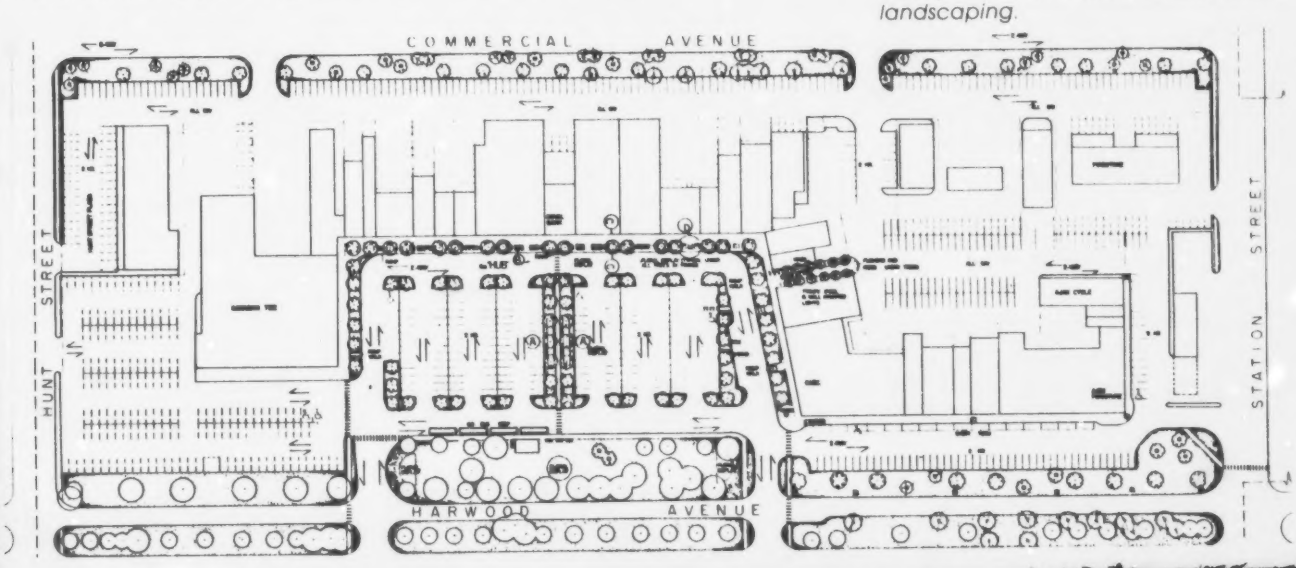
Entrances to parking lots should be located to provide for screened frontage, and to minimize conflict with adjacent vehicular and pedestrian flow.

When laying out car parking, it should be recognized that pedestrians will take the shortest route to their destination. Pedestrian walkways within the parking area are probably unnecessary. Separate walkways seldom prove attractive to pedestrians, and usually compromise vehicular traffic patterns.

The exception to this is when a main pedestrian route crosses the site. In this case, the route should be accommodated on pavement running parallel to the traffic aisles and crossing the roadway at the fewest possible points. Where the walkway crosses a driving lane, the paving should be raised and given a contrasting colour and texture.

The pedestrian routes within the parking area should lead directly to the walkway exits. Special paving and landscaping may be necessary to ensure the exit is not used for a parking space. Signs marking the exits are very helpful.

*The new plan improves traffic flow, provides pedestrian access, walkways and landscaping.*



## Parking for handicapped

Parking spaces solely for the disabled and the elderly should be provided in public lots. While the number will depend on circumstances, a generally recommended guideline is 1 per cent of the total parking spaces in each lot, with a minimum of one stall per lot.[1] If the lot is adjacent to a facility such as a hospital or clinic, the number of spaces should be increased.

These parking spaces should be located as close as possible to the main public entrances or walkways. They should have direct access to the sidewalks with curb cuts or ramps as appropriate. At no time should the disabled be forced to go behind parked cars or in the roadway.

The parking spaces should be at least 3.6 m wide, but when two or more are located together, 3.0 m can be used. The additional space allows for the car door to be opened to its full width, and provides ample room for access by a wheelchair. Because the full swing of the parking vehicle can be accommodated in this stall, a minimum aisle size can be used.

### Materials

The materials and finishes should be selected to minimize both capital and maintenance cost, but they should be coordinated with the products elsewhere in the commercial area.

Hard surfaces should be provided wherever the cars will drive or park. Asphalt is the most common paving material because of its cost. Depending on what is used elsewhere downtown, consideration may also be given to paving bricks. Because of frequent alterations to carparks, re-usable materials and equipment may be cost-effective, although their initial cost may be higher. Porous materials, including asphalt or pavers are being used with good results. They provide direct water percolation and natural drainage, and reduce surface drainage problems and icing.

### Lighting

Parking areas should be designed and treated as an integral part of the commercial area. Lighting in parking areas is primarily for pedestrians, as motorists are capable of seeing with their headlights. Over-lighting by high-level fixtures is unnecessary and often intrusive. Using lights with poor colour rendering results is also inappropriate as cars may be difficult to identify.

Lighting should be consistent with the ambient levels elsewhere in the commercial pedestrian areas. Where nearby street lighting already provides light in part of the parking lot, it need not be duplicated.

The general lighting should be organized to assist in defining the layout of the carpark, and providing direction for the driver. Brighter supplementary light should be used to signal potentially hazardous areas, pedestrian egress points, and directional signs.

Light spillage into neighbouring properties can be a major nuisance. Lighting sources should be shielded or pointed away from residential properties, and in some cases, it may be necessary to lower the lighting levels to prevent spillover, or eliminate the lighting completely for areas near housing.

[1] City of Toronto Planning and Development Department **Development Review Guidelines for a Barrier Free Environment** May 1981

## Landscaping

Good landscaping is important in parking lots. The unattractive, sunbaked or snow-swept and desolate look of some parking facilities discourages people from using them. Landscaping can be used to soften the harshness of the flat open space, provide shade in the summer and protection from the wind in winter. It can also help in separating parking areas from pedestrians. The aim should be to accommodate cars yet make the surroundings pleasant and human scale.

*Landscaped parking lot in Toronto*

Salt contamination and surface run-off from the paved surface is a special concern in parking areas because plants can be badly damaged. The plants should be higher than the surrounding pavement and located away from the main drainage areas. Planting should not take place in areas intended for snow storage because the dumped snow can damage the tree and shrub branches and increase salt contamination.

Landscaping can be used to separate parking from the neighbouring uses, especially when residential. As a general guideline, the paved parking area should have a 6 m setback from an abutting residential property line. A 6 m setback from the sidewalk should also be provided when residential properties are across a street.[1] The wider setback can be planted with trees and shrubbery, and the smaller one used for fencing and small-scale planting. The landscaping should blend with the plants and other landscaping materials used in the downtown area.

*Parking sign, Oakville*

## Signs for Parking

Signage should be used to explain the location, layout and other information about parking. The public's good use of the parking area will depend on their understanding of the system.

Clear graphics are vital, and signs can be used to indicate the following:

- the nearest parking area;
- any special parking areas for compact cars, short-term or handicapped parking;
- areas where the motorist should not park;
- the nearest pedestrian or vehicular exit;
- an indication as to the section or aisle where the car has been parked;
- any potential hazards.

Simplicity in content and graphic style is important for the motorist to understand the signs and make the right decisions while driving. As the message and graphics become more complex, recognition and understanding diminish. To avoid this, the signs must be legible, visible day and night, and uncluttered. An example of easily understood signs are the international traffic symbols. Another example is the circular "P" symbol used throughout Ontario to indicate parking.

In summary, the primary objective of the municipality should be to make parking as convenient to as many people as possible. As emphasized earlier in this section, priority in commercial areas should be given to short-term parking. The on-street parking and more convenient off-street spaces should be reserved for this high turnover use. The policy can be enforced by regularly monitoring the spaces, or using parking meters with one to three hour limits. Any ticket penalties must also be significantly higher than the all-day parking charges to avoid abuse of the system.

The same approach can be used to help spread the demand from the nearby parking facilities to the more distant lots. The parking rates can be adjusted to reflect the desirability of the location. For more detailed information on municipal parking policy and management options, reference should be made to Commercial Parking Guidelines.

## Signs

The facades of buildings in commercial areas contribute substantially to the overall impact of the streetscape. Signs are an aspect of the facade and an integral part of doing business. The finest examples of commercial revitalization have signs that respect the character of the buildings and the surrounding streetscape.

*Contemporary simple sign in Oakville.*

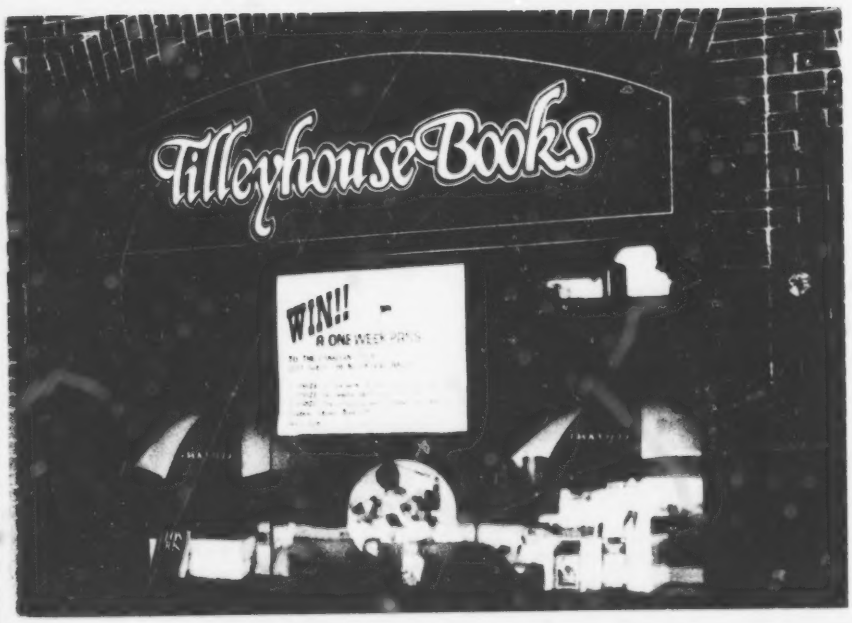
Private signs should clearly identify where a business is located, and devote the majority of its space to the name of the business, followed by subsidiary information on the type and quality of products sold.

Business signs should be located where they can be seen by the potential customers, taking into account that most downtowns are developed for use by pedestrians and slower-paced traffic. Many of the big signs in commercial areas are unnecessary. They are meant for strip commercial areas, where their size and illuminated flashiness is justified by the faster speeds of automobiles.

Many older buildings have a place for signs designed right into the facade above the display windows, and whenever possible, use should be made of these locations, which do not obscure important architectural features or large areas of glass.

In heritage areas, special emphasis can be placed on reflecting the character or period of the building. An appropriate style for the sign can be found from a number of sources, one of which is historical photographs of the old main street.

*In heritage areas signs should reflect the character or period of the building.*




*A variety of sign placements can enrich the streetscape.*

Attempting to have the signs complement the downtown environment does not mean monotonous standardization, nor does it mean uniform placement. A variety of placements, if done tastefully, helps to enrich the streetscape and allows each sign to be visible.

Contrast in colour and tone between the letters and background makes the sign more readable. At night, internally-lit signs with light letters on a dark background are best. This is due to the eye's acute sensitivity to bright light at night.

More than two or three colours are generally unnecessary, and earth tones complement older stone and brick buildings, while primary colours may be suitable to a contemporary setting.

The signs should be easy to read. Flamboyant, intricate or decorative lettering is often difficult to read, and a simple typeface is usually best. There are many styles that are clean, easy to read, and simple enough for any periods of architecture or types of signs.

The size of the sign and lettering should relate to the intended audience. Signs for viewers walking past should have letters at least 7.5 mm high. For automobile traffic, the guideline is 22.5 minimum for lettering, and an additional 2.5 cm for every 15 m between the sign and the viewer.

In commercial areas, the sign industry usually assumes 40 percent of the sign surface is used for lettering, leaving 60 percent for background area, and the sign board need not be more than 60 cm high. While these guidelines have exceptions, they are generally applicable and widely used.

The lettering, along with the style and materials of the sign, can be used to accurately express the nature of the business. They can help reinforce a particular image. They can also reflect the quality of the merchandise inside the store, as well as the type of customer the business wants to attract.

*Overhead signs, commonly associated with a gaudy cluttered environment, can be tastefully designed*

The sign should be well-constructed of good quality durable material that weathers well. In older downtowns with strong historic character, the emphasis could be on the more traditional materials such as painted wood and metal. If used correctly, the life expectancy of these materials can exceed more contemporary types. In more contemporary commercial areas, a wide range of durable materials, from plastic to wood, are available.

The following problems should be avoided:

- **Scale:** The most common misconception about downtown signs is that bigger is better. This often results in over-sized, over-illuminated, overbearing signs that cancel each other out. They may not relate to the size of the buildings to which they are attached, and often dominate or obscure the buildings.
- **Clutter:** The prevailing attitude is often that of safety in numbers. Money is squandered on repetitive signage rather than one or two effective signs. In the desire for free and competitive activity, signs are designed to out-shout their neighbours, leading to a visual chaos in which all of the signs are lost.
- **Standardization:** Standardized corporate signs pose a special problem in attempting to have downtown signage complement the surroundings. Most corporations are aware of their community responsibilities, and will usually cooperate with local municipalities in the selection of signage which suits special local needs.

## Controls

The municipality has the power to control private signs in commercial areas. Through sign by-laws, it can regulate the size, number, placement and type of signs and other advertising features. This has been effectively implemented in many areas, and over the last ten years most signs have changed to meet by-law standards.

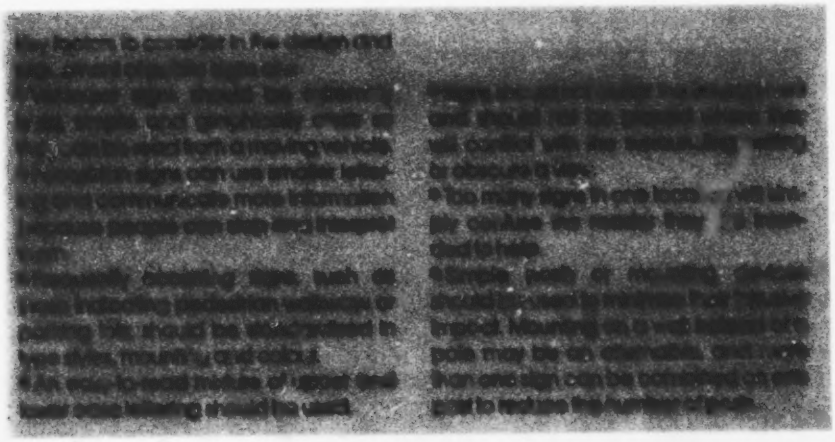
The results to date have been mixed. The controls have had the noticeable effect of eliminating the most obvious problems and reducing the worst excesses of sign clutter. But when too strenuously applied, such controls seem to produce a stark and sterile environment.

A case in point is hanging signs. Many municipalities prohibit all overhanging signs because they tend to be the most conspicuous form of signage. Not all overhanging signs are offensive, however. Properly designed and scaled, they can add interest to the downtown area as well as serve a valid functional role, which is to mark the location of the business for the pedestrian farther down the street.

A similar case can be made for neon signs. All neon signs need not be removed in the name of design uniformity. Neon signs can be effective and attractive, and add a special visual vitality to the downtown area.

## Public Signs

Signs conveying public information are a vital feature of commercial areas. They help identify public facilities and services, provide directional information, and promote the area for shopping.



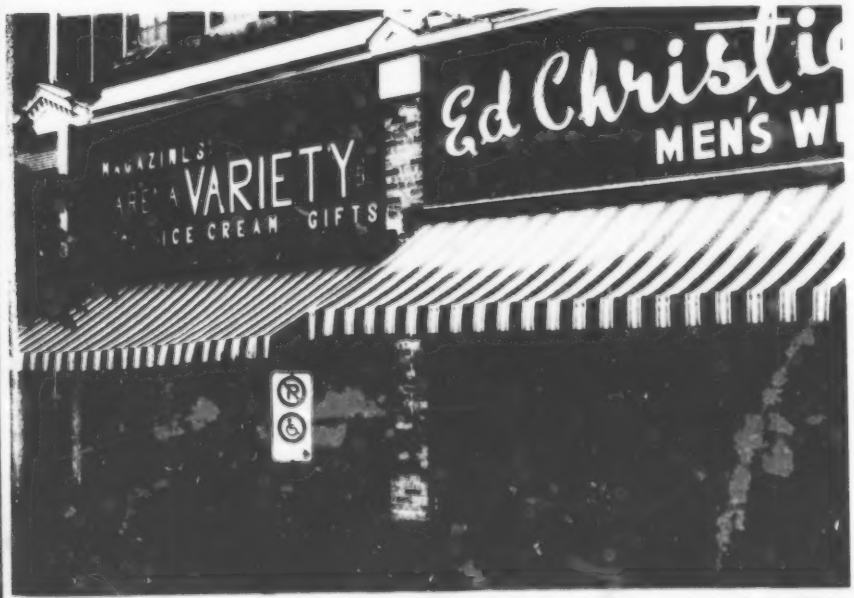
## Awnings

Awnings can play a special role in the commercial area by producing a dramatic change at a moderate cost. They can create a fresh, new look, as well as a more cohesive feeling despite the different stores, fronts and styles.

Awnings also have important functional qualities. Not only can they identify stores, they also keep the rain and sun off the customers, and protect store interiors from excessive light and heat. They can also soften the harshness of a commercial street and create an inviting and lively atmosphere.

Awnings are particularly appropriate for downtowns wishing to maintain a heritage image. Before electric lighting, the old storefronts often had high windows to let daylight penetrate the interior space, and awnings were used to shield the sunlight. They were a common feature on storefronts after the mid-1800s.

Street-level awnings should be co-ordinated along a block face. Colour, shape and overhang distance are all factors to be considered. Awnings should project a uniform distance beyond the face of the building. This will depend on the width




*Awnings are particularly appropriate for downtowns wanting to maintain a heritage image (Collingwood).*

of the sidewalk, but 2 m is needed to serve two pedestrians with packages passing or walking side by side. They should also be no less than 2 m above the pavement, and not extend above the cornice line of the shop windows.

The valance flap provides a good place for lettering. If the awning is serving as the only sign for the business, a logo or a lettered sign may also be appropriate on the awning slope.

*Awnings may be used for signage (North Bay).*

Awnings can be fixed or movable. Stationary, rigid-frame awnings offer the great est variety of shapes and styles. Half-domed, barrel-shaped and curved-fron awnings are possible, but caution is needed to avoid an overdone installatio that looks out of place on many buildings, when not warranted by architectura details. Most awning companies will supply their customers with a conceptua drawing, showing how the finished design will look in relation to the building.

Movable awnings are more expensive but more flexible with regard to climat control. They can be retracted in winter to allow the winter sun to penetrate, an

*Movable awnings are most flexible in regard to climate control: raised to allow winter sun to penetrate and lowered to protect from rain and summer sun.*

[1] Untermann, op. cit. p. 26 and National Main Street Centre, op. cit. p. 61.

lowered during the summer to provide shade and protection from the rain. This can significantly lower heating requirements in winter, and cooling needs in summer.

Awning fabric is available in painted canvas, vinyl-coated canvas or synthetic acrylic. They all come in a wide variety of colours.

Cotton canvas is the most appropriate material from a traditional perspective. It emains the least costly of the alternatives, and has a good range of colour ptions. The durability of cotton canvas has been greatly improved in recent ears, and can be expected to last from five to seven years before replacement.

he vinyl coated cotton canvas awning is essentially the same as painted or tyed canvas, but has a vinyl coating fused to the surface. This material is more oil resistant, colour fast and washable. It costs more, but will last up to eight years.

he new synthetic acrylic fabric is becoming popular because it is highly dura- le, wears well, and lasts up to ten years. It is more colour fast, dries faster, and is ot subject to mildew if rolled while wet. The material is also available in wider abric widths.

tationery aluminum awnings are inappropriate for older commercial structures. removing the projecting aluminum canopies is not feasible, awning material an be stretched over the aluminum or its framework. The effect is attractive and nexpensive.

# 4. Costs

mprovements to commercial areas can be costly undertakings. Major changes re often needed, not only to the appearance of the streetscape, but also to the avement and underground utilities. Because extensive above-grade work should ot be undertaken over out-of-date services, it is often sensible to improve them ll at one time.

he situation in each municipality contemplating improvements to their commer- ial area will be different. To indicate the range of possible costs, and to assist in stablishing priorities for improvements, this chapter examines the cost of com- ercial area improvements in six Ontario communities.

he six community examples are representative of the type of works undertaken ver the last five years in Ontario and reflect the range of budgets which have been developed.

**North Bay** and **Collingwood** made comprehensive streetscape improvements in conjunction with a major overhaul of underground services and repaving of streets. **Midland**, having previously undertaken improvements to the streetscape and parking, concentrated their more modest program on multi-purpose mid-block pedestrian nodes. **Essex** demonstrates how a small community can undertake effective streetscape improvements on a limited budget. **Dundas** concentrated funds on upgrading and landscaping their downtown off-street parking areas. And **Carleton Place** undertook improvements in addition to major services and road construction.

Typically, comprehensive improvement plans for commercial areas, incorporating new paving, landscaping, lighting and street furniture, have cost from $80-160 per metre along the street. These figures exclude the costs of underground work.

Within the improvement projects, the costliest features tend to be interlocking paving, lighting and trees. However, these three features also seem to make the most dramatic improvement to the visual character of the commercial area.

unding for these improvements usually comes from a variety of sources. Money om the businesses in the BIA, however, is crucial because it represents a starting oint. Municipalities often have a major financial role, especially in the larger rojects involving improvement to the underground services. Other key contribu- rs have included the public utility commissions, parking authorities and the Ministry of Transportation and Communications, through its linking road funds.

or an up-to-date source of funding for commercial area improvements, refer- nce should be made to: Provincial Financial Assistance to Municipalities, Boards nd Commissions, produced annually by the Ministry of Municipal Affairs and lousing.

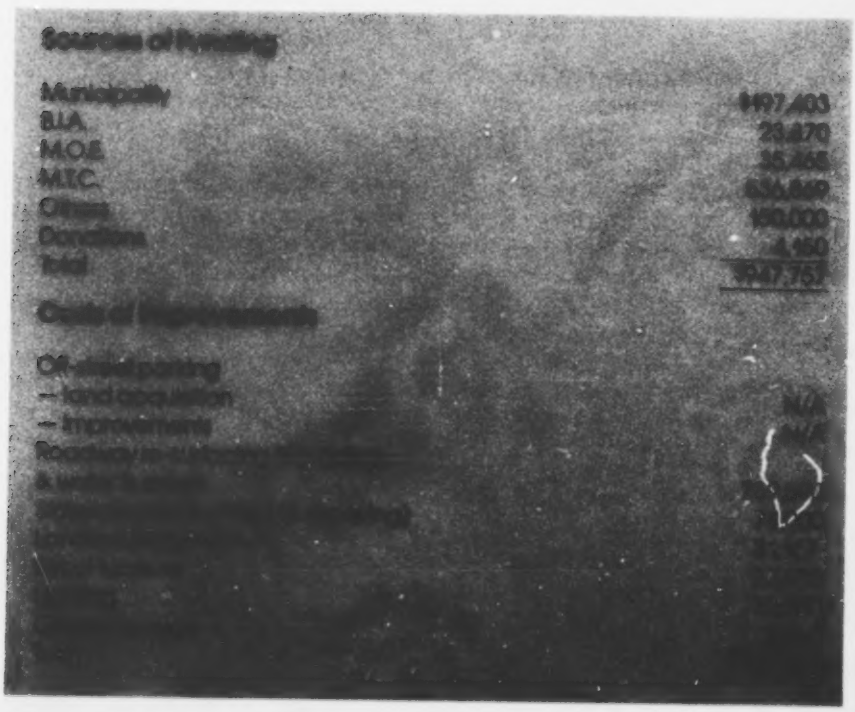
he following pages provide a representative photograph for each scheme, a rief but thorough description of the improvements undertaken, and a break- down of the corresponding costs. The cost data is for the year indicated.

## Carleton Place

The improvements were undertaken along a three-block length of Bridge Street (545 m X 16 m r.o.w.) in the summer of 1982. They included the following:

- approximately 100 low-level decorative lighting units spaced at approximately 10 metre intervals, high level traffic lighting along one side of the street was also retained
- coordinated timber street furniture, including benches, waste receptacles, planters and fencing
- approximately 100 trees with metal guards planted at 10 metre intervals
- new entrance sign at foot of the street
- new concrete sidewalks (3.2 metres wide) with brick strips and edging, brick crosswalks, and two brick pedestrian nodes
- asphalt paving of roadway (7.25 m for two travel lanes and 2.5 m for parallel parking on one side only)

*Bridge Street, Carleton Place.*



## Collingwood

The improvements, which were made along three blocks of Hurontario Street (705 m x 33 m r.o.w.) during May-October 1980, included the following:

- asphalt repaving of street (21 m curb-to-curb at parking bays and 14 m between corner curbs)
- 45° angle parking on the street, replacing 60° angle parking
- brick paving on sidewalks (6 m wide), pedestrian islands and crosswalks in street
- 160 trees in seven species (mountain ash, lindens, apples, maple, oak, maidenhair and pine) at 16 m intervals along street and clustered on pedestrian islands
- four poles with banners (4 banners per pole) at each end of street, and five flagpoles in front of City Hall
- pedestrian islands at corners and midpoint of blocks
- low-level street lighting with "coach-style" fixtures on 5.9 m poles
- new large concrete cast-in-place planters, natural timber benches and garbage bins
- outdoor sound system with speakers mounted on light stands
- new underground electrical ducts, sanitary and storm sewers and water mains

*Hurontario Street, Collingwood*

The costs exclude the contribution of the local public utility commission, which paid a basic replacement amount for poles and fixtures.

**Sources of Funding**

| | |
|---|---|
| Municipality | $ 561,800 |
| B.I.A. | 150,510 |
| M.T.C. | 435,920 |
| Total | $1,148,230 |

**Costs of Improvements**

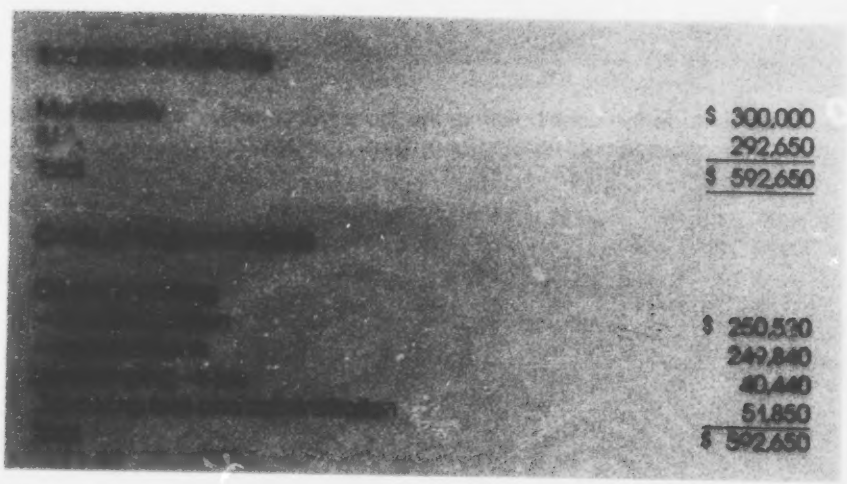
| | |
|---|---|
| Off-street parking | |
| —Improvements | $ 21,230 |
| Roadway re-surfacing & grading | 230,000 |
| Sidewalk improvement (& repaving) | 207,000 |
| Landscaping—trees | 29,000 |
| —other | 8,000 |
| Street furniture | 40,000 |
| Lighting | 57,000 |
| Underground utilities | 320,000 |
| Consulting fees | 192,000 |
| Traffic signal improvements | 39,000 |
| Total | $1,148,230 |

## Dundas

The improvements, completed in June-September 1981, focussed on upgrading two off-street parking areas and associated pedestrian laneways. The work included the following:

- asphalt paving, curbs, drainage and lighting in the parking areas
- landscaping and fences in the associated buffer areas along abutting residential properties
- interlocking paving stones, pedestrian-scaled lighting, planters, shrubs and ground cover along the laneways

*Parking lot in rear of King Street, Dundas.*



## Essex

The improvements, completed in the summer of 1982, were undertaken along two blocks of Talbot Street (315 m x 21.6 m r.o.w.) and in two associated off-street car parking areas.

The streetscape improvements included the following:

- 34 new decorative, (3.6 m high) light fixtures spaced every 10.6 m
- 26 50-75 mm caliper trees with metal tree guards and wrought iron grates
- two flag poles
- 20 timber and wrought iron benches

*Talbot Street, Essex.*

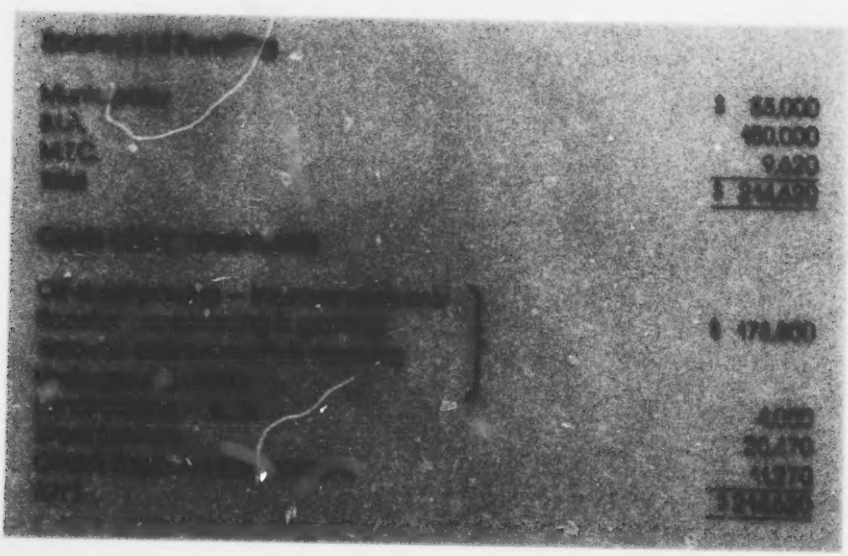
- shrub planting areas defined by concrete curb
- pedestrian nodes located typically at mid-block and corners and paved by brick pavers
- Parking improvements which included asphalt paving and storm water drainage

## Midland

The improvements made along three blocks of King Street (270 m of 24.4 m r.o.w.) in April-July, 1982, included the following:

- sidewalks widened 1.5 m and paved with interlocking brick pavers, existing concrete pavement and curbs were kept
- three pairs of pedestrian nodes at middle of each block with the following additional 2.7 m of pavers, trees — lindens and locust — (eight in large node and four in two small nodes) planted in wood planters, wood benches and waste receptacles, seasonal banners on eight poles, catch basins for storm water drainage and electrical conduits for wiring to trees and public address system (not installed), and Christmas tree lights
- existing road pavement and parallel on-street parking retained

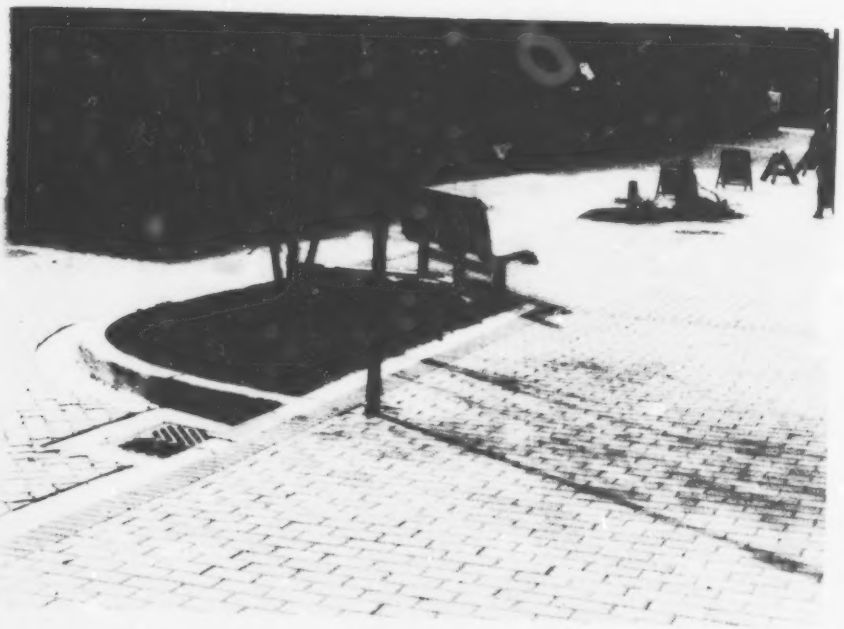
*King Street, Midland.*



## North Bay

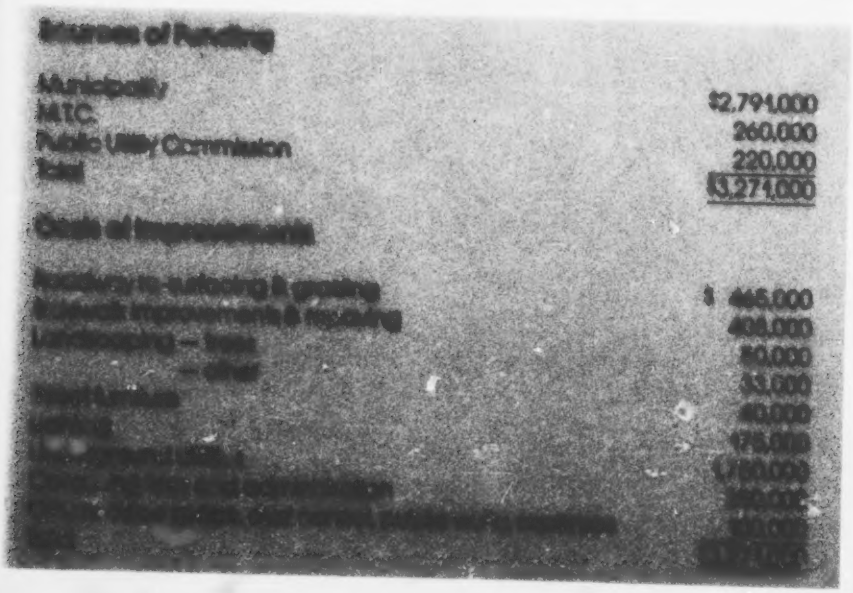
The improvements were made along five blocks of Main Street (1000 m x 21.6 m r.o.w.). The work was substantially completed between April and October, 1983. The improvements included the following:

- reduced roadway (two 3.5 m for travelling lanes and two 2.5 m for parallel parking) surfaced with interlocking paving stones
- wider sidewalks (3 m minumum) surfaced with interlocked paving stones
- new pedestrian-scaled street lighting using high pressure sodium fixtures on 5.2 m poles spaced at 30 m offset on opposite sides of the street
- new benches, litter receptacles, directories, phone booths and street banners
- new watermains, sanitary and storm sewers, service laterals and underground hydro ducts



*Main Street, North Bay*

- pedestrian nodes at corners and mid-block, associated with pedestrian cross-walks, and containing trees and shrubbery in large in-ground planting areas
- extensive landscaping incorporating a wide variety of shrubs and about 160 trees (ash, locust, oak, birch, linden and pines)
- stone retaining wall and ramp in one block to take up 1.3 metre change in grade across street



# 5. Implementation

ne implementation of commercial area improvements should be considered om the outset of the planning process. There are practical tools as well as onstraints on action which municipalities will have to consider when planning nprovements, since the timing, cost and choice of improvements will be affected. this chapter, the municipal planning process and related tools are discussed long with the formation of a BIA. Also examined are a number of considerations r the construction and maintenance phases.

## Municipal policy

ne key planning tool at the municipal level is the official plan, and physical im- rovements to downtown or a neighbourhood commercial area should be under- aken within a consistent set of municipal planning policies for the entire community.

One approach a municipality might consider following is described below.

Under the Planning Act, 1983, municipalities are required to prepare community improvement policies to be eligible to use the remainder of the legislative provisions covering community improvements (e.g., land acquisition, public-private improvement agreements) and to be eligible to participate in certain grant and loan programs. The content of the community involvement policies will vary from municipality to municipality, but basically they will identify problems, opportunities and solutions appropriate to individual situations.

Under the Planning Act, the community improvement process involves the following basic steps:

- The preparation and approval of official plan policies relating to community improvements.
- The designation of a community improvement project area by the municipality.
- The preparation and approval of a community improvement plan in conformity with the official plan policies.
- The implementation of the plan through private redevelopment and rehabilitation, enactment and enforcement of municipal by-laws, and expenditures of funds on public works.

since the development of these policies is a relatively recent legislative requirement, most municipalities will need to incorporate the appropriate policies either by amendment to their official plans, or as part of an overall official plan review. Municipalities preparing new official plans should include community improvement policies as part of that process.

Community improvement plans are the means for translating the more general community improvement policies into specific proposals for a particular project area. The concept plan and work program, described in the first chapter, could form the main components of the community improvement plan.

The plans represent the major opportunity for the public to review and comment on the proposals. They must follow the formal approval process that includes public notice and meetings, adoption and appeal procedures, and finally approval by the Minister. Once approved, the municipalities can proceed with implementing the imporvements without further public review, except for any substantial amendments.

The community improvement plans generally are expected to cover these aspects:

- the improvement area's delineation together with the basis for selection;
- the proposed land-use and transportation framework;
- the proposed public improvements to the roads, sewers, watermains and other utilities and community undertakings;
- the estimated costs of the public undertakings;
- the proposed staging and administration;
- the implementation methods, including public funding, land acquisition, rehabilitation programs, the re-housing and relocation programs, and heritage designations.

The plan should also be supported by the necessary background material covering topics such as existing land-uses; the social and economic conditions; the existing condition of buildings, municipal "hard" services and community facilities; and the public involvement in the preparation of the plan.

Because the plan is likely to be implemented over a few years, sufficient flexibility should be incorporated to allow for minor changes in the projects and budgets without formal amendment. A clause should be included outlining circumstances under which these changes can be implemented without amendment.

For further details, see Guideline 4: Community Improvement on the Planning Act prepared by the Ministry of Municipal Affairs and Housing.

## Zoning By-laws and related controls

The municipality has the power to enact and enforce a wide range of other controls and regulations. All of these can be used to facilitate or support commercial area improvements. The municipality should consider in the early planning stages how these regulations might be effectively employed. At the same time, the municipality should also examine whether existing regulations may need revision to ensure they are not unintentionally hindering revitalization efforts.

The municipality can enact zoning by-laws controlling the height, bulk, location, size and a variety of other physical characteristics of new buildings (Planning Act, Section 34). These by-laws are the single most important tools municipalities have for regulating actual physical development.

A number of other related goals have been employed quite effectively to encourage commercial area improvements. Bonus provisions may be used to gain amenities at street level, such as parkettes or plazas, in exchange for increased building density. Holding and interim control by-laws (Planning Act, Section 35 to 37), can assist in the timing of certain development and in focussing activity in certain areas.

To promote more development, the municipality may also take a more flexible approach to its zoning provisions. For example, the land- use designations could allow for mixed-use development, and could include bonus provisions for infill and other types of desired development. Greater use could be made of site plan controls, (Section 40, Planning Act), to deal more effectively with the conceptual design of proposed developments.

**Car Parking:** The municipality has wide powers over the provision of car parking. It can impose off-street parking requirements for new developments through the zoning by-law (Section 34, Planning Act), receive "cash-in-lieu" payment from developers (Section 39, Planning Act), provide public parking lots (Section 9, (208) Municipal Act), and establish a parking authority to operate them, (Section 9 (207-234) Municipal Act).

**Heritage conservation:** The municipality can designate buildings as historically and or architecturally significant (Ontario Heritage Act, Part IV). The designation gives the municipality the power to refuse a permit for alterations or demolition. The municipality may also acquire or expropriate the buildings, make grants for their alterations, acquired easements or enter into agreements for their upkeep.

Where a number of historic buildings effectively work together to create a unified streetscape, the area can be designated as a "heritage conservation district". This designation gives the municipality many of these same powers over all of the buildings in the district regardless of their individual heritage.

*Oakville*

**Sign control:** The municipality can enact a by-law regulating the size, number, location and type of new signs and other advertising features within a commercial area. They are also empowered to prohibit signs overhanging the sidewalk (Section 210, Municipal Act).

Controlling signage can assist in creating a more distinctive and cohesive image for a commercial area. Overly large signs that clutter the streetscape and screen buildings can be prohibited. The legibility and location of signs can be improved, and a more standardized system of display consistent with the particular theme of the area can be introduced.

**Property maintenance and occupancy standards:** The municipality can establish through by-law standards for the maintenance and occupancy of property within the area (Section 31, Planning Act). They also have the power to ensure that properties are repaired and maintained to those standards. This is a useful tool for ensuring that an area is not adversely affected by the poor upkeep of one or more buildings.

## Business improvement areas

A Business Improvement Area (BIA) provides means for local business communities to help themselves in upgrading and promoting their commercial districts. To be specific, under Section 217, of The Municipal Act, a BIA can undertake the following:

- the improvement, beautification and maintenance of municipally owned lands, buildings and structures in the area beyond that normally provided at the expense of the municipality; and
- the promotion of the area as a business or shopping district.

A BIA is established by municipal by-law of the local council on the initiative of the the local business community. The activities of a BIA are directed by a board o management appointed by council, and funded by a special tax levy applied to all businesses in the area. Since the enabling provincial legislation was enacted in 1970, more than 175 BIAs have been established throughout Ontario.

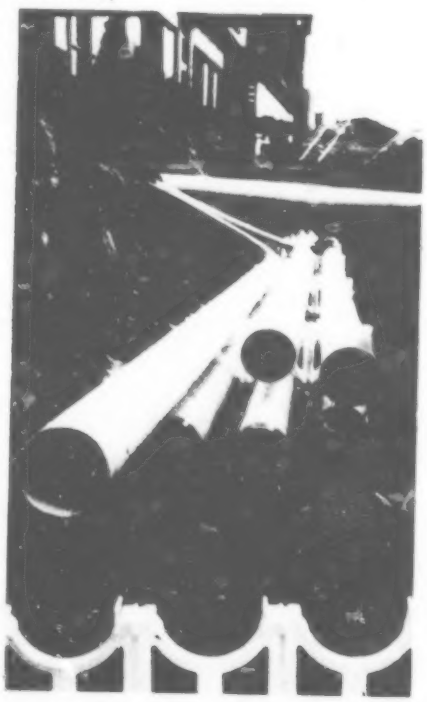
A BIA can assist in creating a progressive and attractive business environment Through cooperation and innovation, a BIA can attack problems of declining viability, increased competition and physical deterioration. An active BIA can:

- generate greater community interest and pride in the downtown area;
- improve the overall appearance of the area;
- serve as a lobby group with the municipality;
- promote the entire area in competition with other centres;
- develop an effective working cooperation within the business community;
- attract and maintain customers for the area.

For further information on Business Improvement Areas, contact the Community Renewal Branch of the Ministry of Municipal Affairs and Housing, or the Ontario Business Improvement Area Association.

## Construction

*North Bay*



Two different approaches have been taken towards scheduling the construction of commercial improvements in Ontario communities. One promotes the undertaking of all the work at one time, and the other recommends phasing the project over a number of years.

Those in favor of a single major effort wish to get the work done as soon as possible and suffer the disruption once. All construction in Collingwood, for example, was done in four months, beginning in spring, with all the work completed by the summer. This approach is highly recommended by the local B.I.A.

Those in favour of a phased program argue that it allows them to spread the costs, coordinate the work more effectively and utilize local contractors more readily. This latter approach seems particularly appropriate in communities depending on the tourist trade, and that wish to confine construction to certain short periods, such as early spring.

Experience to date shows that comprehensive improvements to one block can be completed in a one month period, which means that only one block at a time needs to be closed to vehicular traffic. Within that time, a qualified contractor should be able to upgrade the underground services, regrade and repave the roadway and sidewalks, and install new lighting and landscaping. Such a phased approach was implemented by Orillia, with great local satisfaction.

Although closing the street to vehicular traffic for short periods may be necessary, maintaining pedestrian access to every shop should be possible at all times. This may require some tolerance from the customers, and some ingenuity from the

contractor. For example, walking on a gravel bed or on a temporary timber walkway may be necessary. Access to the shops at all times is clearly important to the shopkeeper, and should be guaranteed in the construction specification. To maintain good relations with local business people, they should be kept up-to-date on when the work will affect them. The prospect of losing trade during the construction phase is a legitimate concern of all merchants. Despite the disruption and disturbance, experience has shown that sales can be maintained during construction.

With proper planning, the commercial area improvements become a total community effort. The building activity itself will generate traffic as residents come downtown to watch the progress. Merchants should respond with a "fun" approach and build on this natural interest.

Successful efforts have included holding a "dust" sale or a "no sidewalk" sale, maintaining regular photo coverage in the local media, and having promotional contests, such as guessing the number of bricks to be laid. Interest can be sustained for up to three months with creative marketing efforts. After completion, a celebration sale is usually successful.

The key to maintaining a tight construction schedule is a good specification. The deadlines should be clear and firm, but realistic. At the same time, the contractor must also be allowed some flexibility in order to work around the unforeseen problems without holding up his crew. It should also be realized that a tight specification, while reducing the building period, may also raise the construction costs. The contractor may add a premium to the bid as a safeguard. Another common way to encourage compliance is to impose penalties for late completion and offer bonuses for early completion.

Structural damage to the buildings from major excavation work is also the concern of many shopkeepers. Comprehensively photographing and surveying all of the buildings prior to construction will protect the municipality from fraudulent or exaggerated claims as well as reassuring the shopkeepers that their interests are being considered.

## Maintenance

The involvement of the municipality and merchants with the improvements does not end with construction. The initial effort will be wasted unless the new furniture, landscaping and equipment are well maintained. The upkeep need not be costly or onerous, but it will be a continuing concern in most municipalities.

The municipality and merchants should reach an early understanding about maintenance responsibilities. While the municipality has the major resources, it should be recognized that the merchants have a direct proprietary interest and are often quicker to appreciate when there is a problem. With this in mind, the interest and involvement of the merchants in maintenance should be encouraged.

Renewed community pride in the appearance of the commercial area appears to be the best ally of the municipality in keeping the improvements in good order. Where vandalism has occurred it has generally been of a petty nature: broken tree limbs, upset litter bins, flowers pulled and planters disturbed.

Common sense will reduce the opportunity for vandalism. For example, materials subject to petty vandalism should not be used outside taverns, schools and the other areas where vandalism most commonly occurs. Very sturdy structures and equipment which resist the effects of vandalism are desirable. Materials that might attract vandalism should not be used. Examples are small trees and shrubs, or fences and barriers that frustrate reasonable passage. Any item which can be sat on or jumped on should be strong enough to withstand such activity.

*Markham*

Repairing the damage as soon as possible is important. Not only is a broken bench or a splintered planter possibly hazardous, it also appears to encourage further vandalism. The need to prosecute vandals raises differing opinions, but some communities feel their early and vigorous prosecutions, with strong publicity, were effective in reducing subsequent vandalism. The best protection is probably a community with a real local pride in its revitalized downtown.

Downtown planting will need regular maintenance, such as watering, fertilizing, replanting and pruning. Outside furniture will also suffer from harsh weather and intense use, and will require an on- going maintenance program.

The need to buy durable equipment cannot be over-emphasized, to minimize repair and replacement costs. It is false economy to purchase inferior and inexpensive furniture when it does not hold up in use. Before buying, the experience of other municipalities should be checked. Every reputable supplier and manufacturer will be able to supply names of past clients. Depending on the likely exposure to damage or deterioration, it may be advisable to specify a reasonable number of spare parts for replacement.

In the last two sections on construction and maintenance it has not been possible to list the many considerations a municipality must make when embarking on a program of commercial area improvements. Some major concerns have been set out, but for more details, contact with other municipalities is probably best. The Community Renewal Branch of the Ministry of Municipal Affairs and Housing, or the Ontario Business Improvement Area Association can refer those interested to appropriate contacts.

*North Bay*

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## Feedback

### Planning and Design for Commercial Area Improvements

We would like to hear from you about your experiences with commercial area improvements.

1. Comments on this handbook: _____

_____

_____

_____

2. Suggestions for follow-up work:

(a) maintenance: _____

_____

(b) landscaping techniques: _____

_____

(c) implementation: _____

_____

(d) other: _____

_____

_____

3. Format of follow-up work

(a) Handbook _____

(b) Pamphlet _____

(c) Slide Show _____

(d) Other _____

Thank you

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